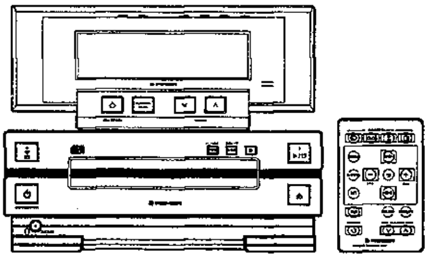
PIONEER®
The Art of Entertainment

Service Manual



ORDER NO.
RRV1849

STEREO CD RECEIVER

XC-L7

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	XC-L7		
MYXK	O	AC220-230V	
NVX	DU-L7	AC230V	

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T - IZK SEPT. 1997 Printed in Belgium

1. SAFETY INFORMATION

LITHIUM BATTERY NOTICE

WARNING!

Lithium batteries. Danger of explosion. Replacement must be done by qualified personnel and only by following the instructions given in the service manual.

This warning is stated on the product or in the operating instructions. When replacing the lithium batteries, follow the note below.
Dispose of the used battery promptly. Keep away from children. Do not disassemble and do not dispose of in fire.
The battery used in this device may present a fire or chemical hazard if mistreated. Do not recharge, disassemble, heat above 100°C or incinerate. Replace only with the same Part Number. Use of another battery may present a risk of fire or explosion.

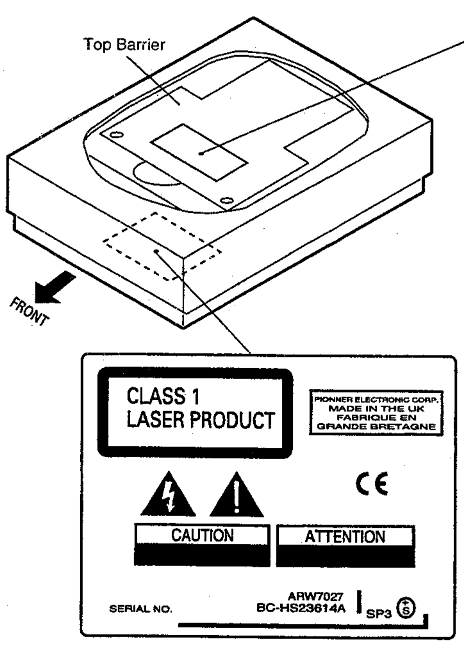
Note: The lithium battery installation position is shown in the exploded views.

ADVARSEL!

Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

Denne advarsel or angivet på produktet eller i brugsvejledningen. Ved udskiftning af lithium batterierne følges nedenstående anveisning.
Batterierne må kun udskiftes med batterier af samme type og mærke.

LABEL CHECK

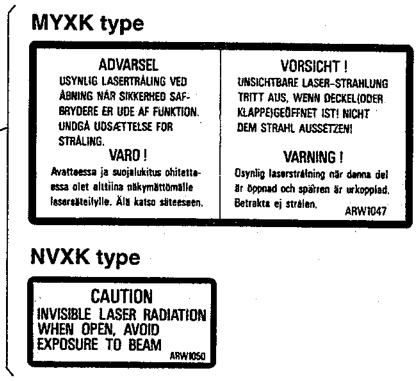


CLASS 1
LASER PRODUCT

PIONNER ELECTRONIC CORP.
MADE IN THE UK
FABRIQUE EN
GRANDE BRETAGNE

CAUTION
ATTENTION

SERIAL NO.
ARW7027
BC-HS23614A
SP3



MYXK type

ADVARSEL
USYNLIG LASERTRÅLING VED ÅBNING NÅR SIKKERHED SAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

VARO!
Avatteessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

VORSICHT!
UNSICHTBARE LASER-STRAHLUNG TRITT AUS, WENN DECKEL(ODER KLAPPE)GEÖFFNET IST! NICHT DEM STRAHL AUSSETZEN!

VARNING!
Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

ARW1047

NVXK type

CAUTION
INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM
ARW1050

Additional Laser Caution

1. Laser Interlock Mechanism
   The position of the switch (S601) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S601) is not on $\overline{\text{CLMP}}$ terminal side ($\overline{\text{CLMP}}$ signal is OFF or high level.). Thus, the interlock will no longer function if the switch (S601) is deliberately set to $\overline{\text{CLMP}}$ terminal side (low level).
   The interlock also does not function in the test mode*.
   Laser diode oscillation will continue, if pin 1 of M51593FP (IC101) on the PRE-AMP BOARD ASSY mounted on the Pickup Assy is connected to GND, or pin 19 is connected to low level (ON), or else the terminals of Q101 are shorted to each other (fault condition).

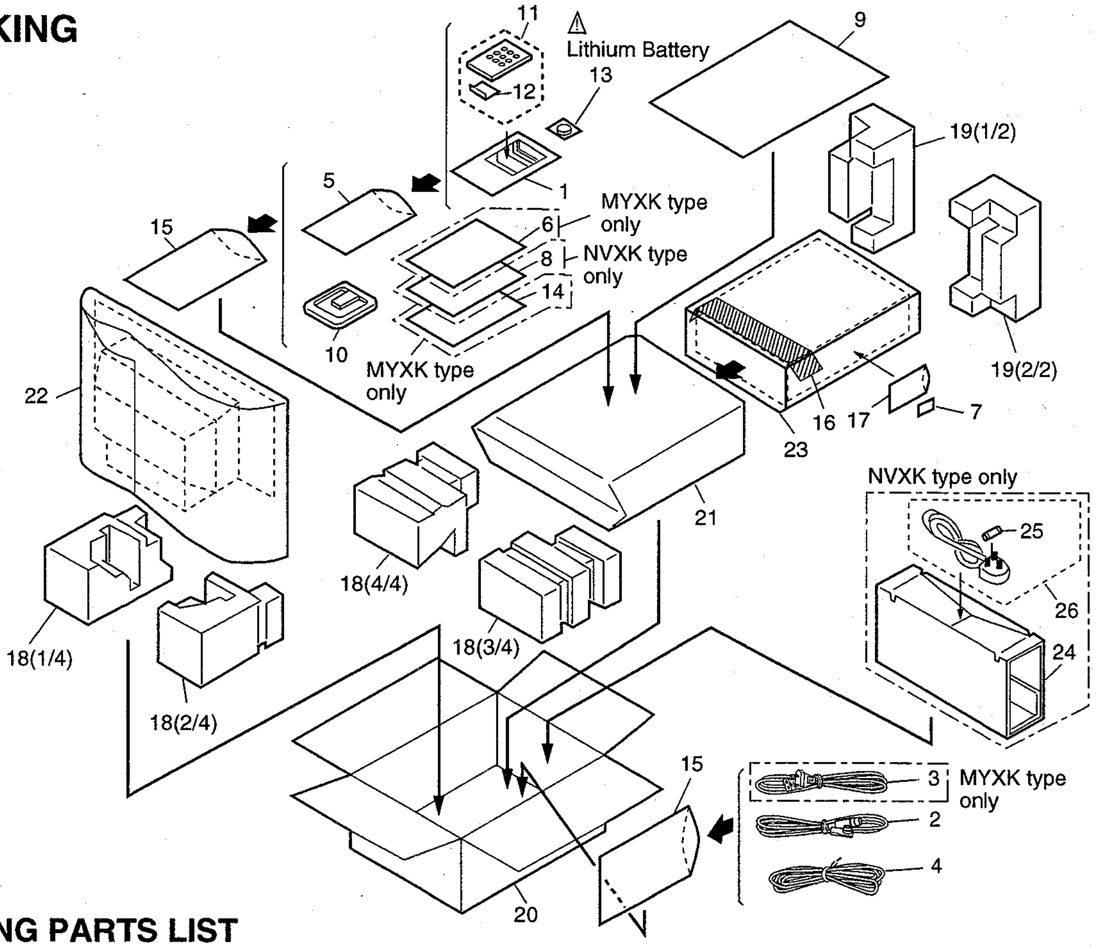
2. When the cover (CD MAIN Unit:AWZ8984) is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* : Refer to page 43.

2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *Screws adjacent to ▼ mark on the product are used for disassembly.*

2.1 PACKING



(1) PACKING PARTS LIST

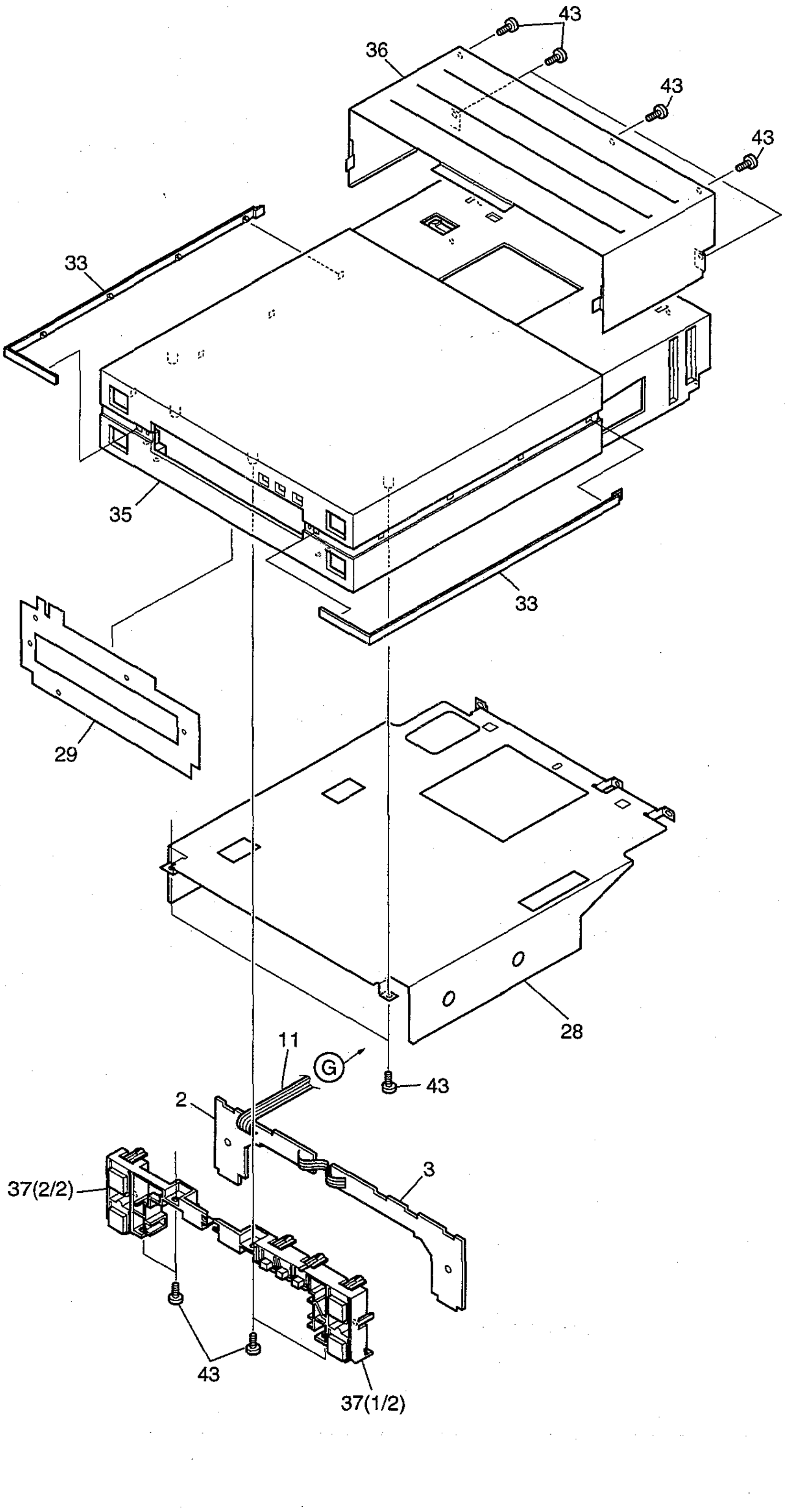
Mark	No.	Description	Part No.
	1	Remote Control Unit Holder	AAH7008
	2	Display Unit Cord (10P Mini-DIN Cable)	ADE7014
⚠	3	Power Cord	See contrast table (2)
	4	FM Antenna	ADH7005
NSP	5	Vinyl Bag	AHG7031
	6	Operating Instructions (English/French/German/Italian)	See contrast table (2)
NSP	7	Caution SG	ARR7013
	8	Operating Instructions (English)	See contrast table (2)
NSP	9	Warranty Card	ARY7010
	10	AM Loop Antenna	ATB7007
	11	Remote Control Unit (CU-XC004)	AXD7145
	12	Battery Case	AZE7116
NSP⚠	13	Lithium Battery (CR2025)	VEM1009
	14	Operating Instructions (Dutch/Swedish/Spanish/Portuguese)	See contrast table (2)
	15	Polyethylene Bag	Z21-038
NSP	16	Protect Sheet	AEH7004
NSP	17	Silica Gel	AEN7001
	18	Pad FCD (PS)	AHA7175
	19	Pad RCD (PS)	AHA7182
	20	Packing Case	See contrast table (2)
NSP	21	Vinyl Bag	AHG7036
NSP	22	Polyethylene Bag	CEG1116
	23	Mirror Mat Sheet	Z23-007
	24	Sub Packing	See contrast table (2)
⚠	25	Fuse(T5A)	See contrast table (2)
⚠	26	Power Cord	See contrast table (2)

(2) CONTRAST TABLE

MYXK type and NVXK type are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.		Remarks
			MYXK type	NVXK type	
⚠	3	Power Cord	ADG7010	Not used	
	6	Operating Instructions (English/French/German/Italian)	ARE7132	Not used	
	8	Operating Instructions (English)	Not used	ARB7126	
	14	Operating Instructions (Dutch/Swedish/Spanish/Portuguese)	ARE7133	Not used	
	20	Packing Case	AHD7483	AHD7508	
	24	Sub Packing	Not used	AHD7507	
⚠	25	Fuse(T5A)	Not used	AEK7001	
⚠	26	Power Cord	Not used	ADG7009	

2.2 MAIN SECTION (XC-L7)


43
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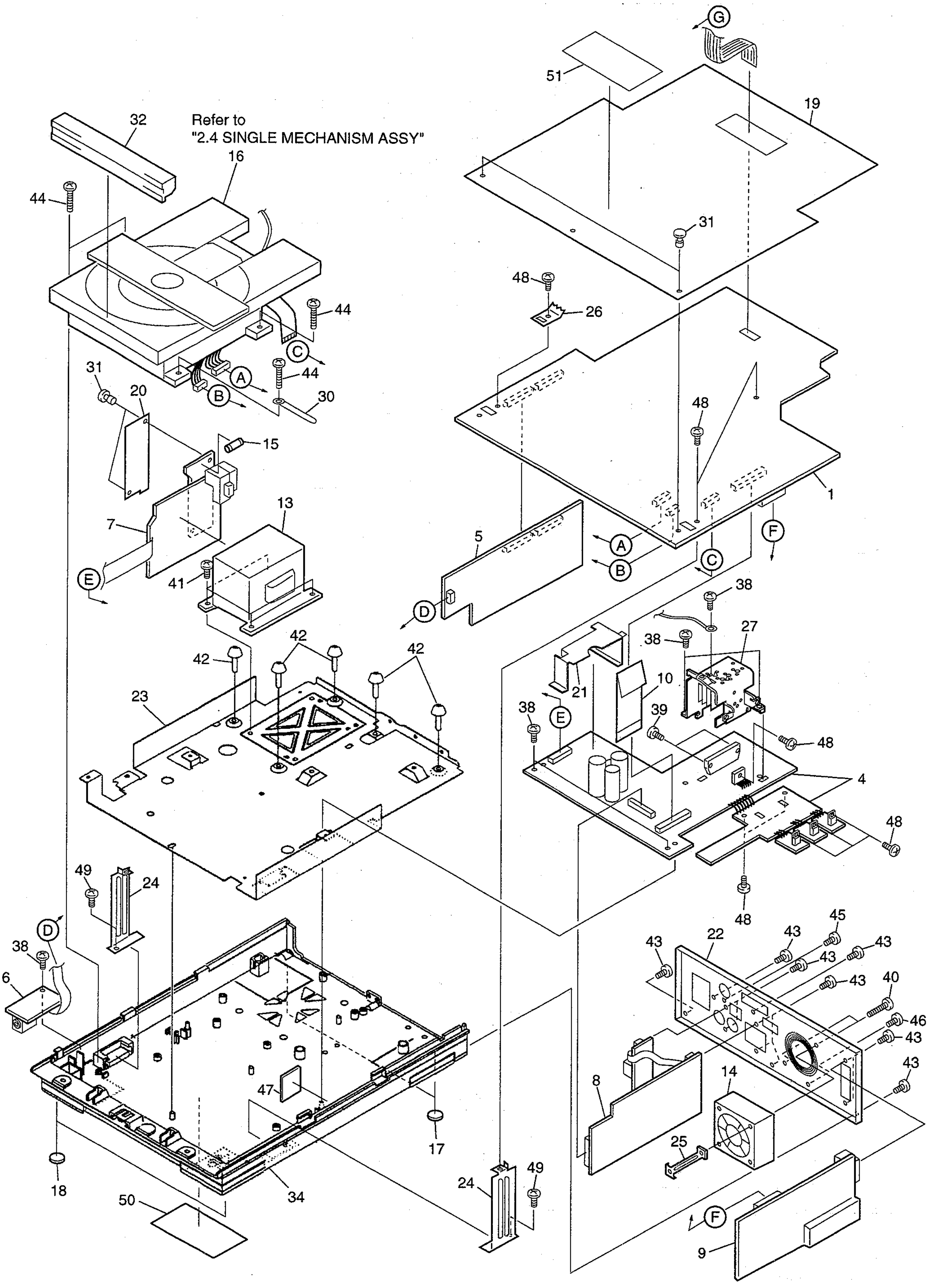
37(2/2)
43
37(1/2)



Refer to
"2.4 SINGLE MECHANISM ASSY"

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(1) MAIN SECTION PARTS LIST

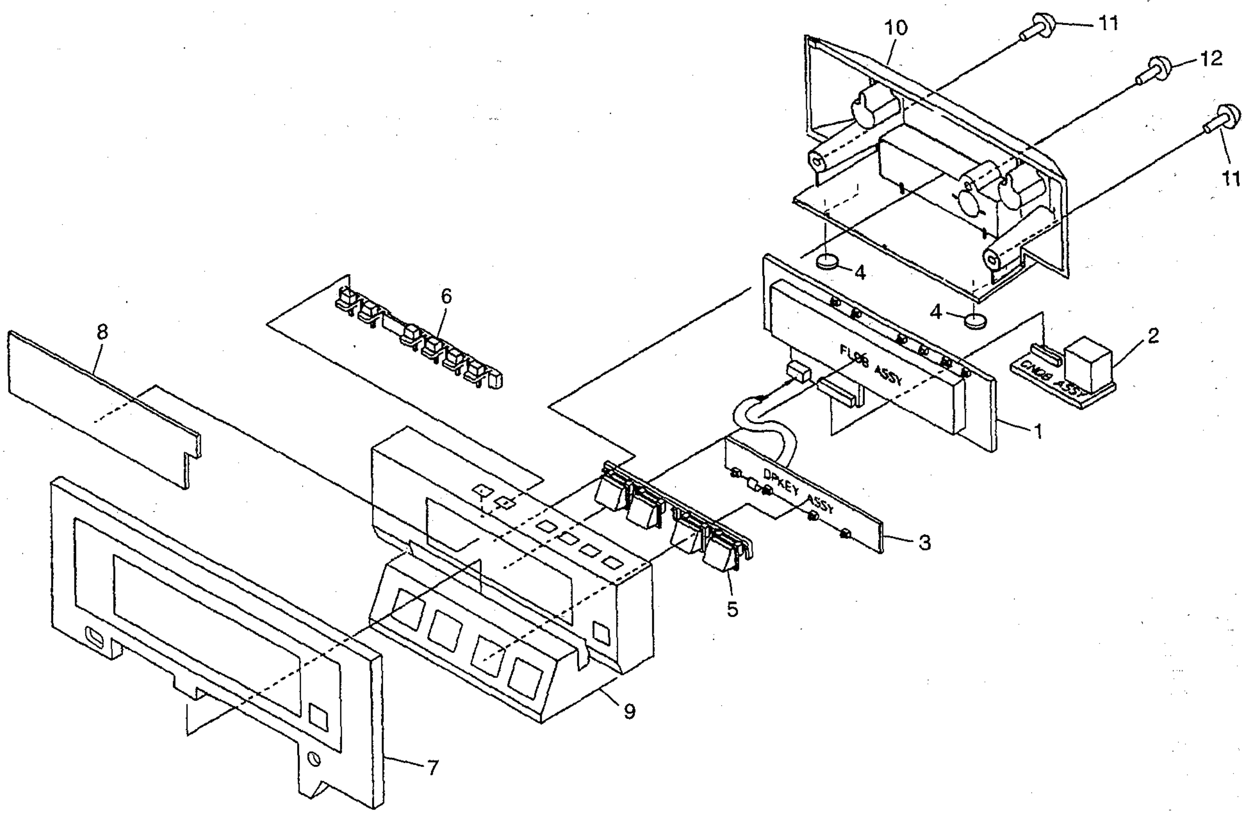
Mark	No.	Description	Part No.
	1	CD MAIN Unit	AWZ8984
	2	CD KEYB1 Unit	AWZ8985
	3	CD KEYB2 Unit	AWZ8986
	4	POWER AMP Unit	AWZ8990
	5	POWER AF Unit	AWZ8991
	6	POWER HP Unit	AWZ8992
	7	POWER TRANS Unit	AWZ8993
	8	POWER SPTB Unit	AWZ8994
	9	FM/AM Tuner Module	AXQ7077
	10	Lead Card(33P)	ADD7065
	11	Lead Card(5P)	ADD7066
	12	• • • • •	
⚠	13	Power Transformer(T1)	ATS7180
	14	DC Fan Motor	AXM7003
⚠	15	Fuse(FU1, T1AL250V)	AEK1054
NSP	16	Single Mechanism Assy	RXA1672
	17	Leg	AEB7090
	18	Front Leg	AEB7102
	19	Top Barrier	AEC7122
	20	Side Barrier	AEC7104
	21	M Barrier	AEC7121
	22	Rear Panel	See contrast table (2)
NSP	23	Bottom Plate CD	ANF7007
	24	Angle	ANG7151
	25	Fan Plate	ANG7153
	26	Earth Plate	ANG7168
NSP	27	Heat Sink	ANH7066
NSP	28	Top Plate	ANK7034
	29	Tray Sheet	AWL7027
	30	Cord Clamper	RNH-184
	31	Rivet	VEC1178
	32	Tray Panel CD	AAN7170
	33	Black Line	AAP7033
	34	Bottom Base CD	AMA7003
	35	Top Panel	AMB7455
	36	Bonnet	ANE7168
	37	Button Assy	AWL7024
	38	Screw	BBZ30P080FMC
	39	Screw	IBZ30P150FCC
	40	Screw	BBZ30P300FZK
	41	Screw	BBZ40P060FMC
	42	Screw	BPZ30P060FZK
	43	Screw	BPZ30P080FZK
	44	Screw	BPZ30P180FZK
	45	Screw	PMZ30P060FZK
	46	Screw	VBZ30P080FZK
NSP	47	Spacer A	AEB7085
	48	Screw	BBZ30P080FCC
	49	Screw	BPZ30P060FCU
	50	Name Label	ARW7027
NSP	51	Caution Label	See contrast table (2)

(2) CONTRAST TABLE

MYXK type and NVXK type are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.		Remarks
			MYXK type	NVXK type	
	22	Rear Panel (FE)	ANC7589	ANC7592	
NSP	51	Caution Label	ARW1047	ARW1050	

2.3 DISPLAY SECTION (DU-L7)


10
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FLDB ASSY
CNDB ASSY
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DPKEY ASSY
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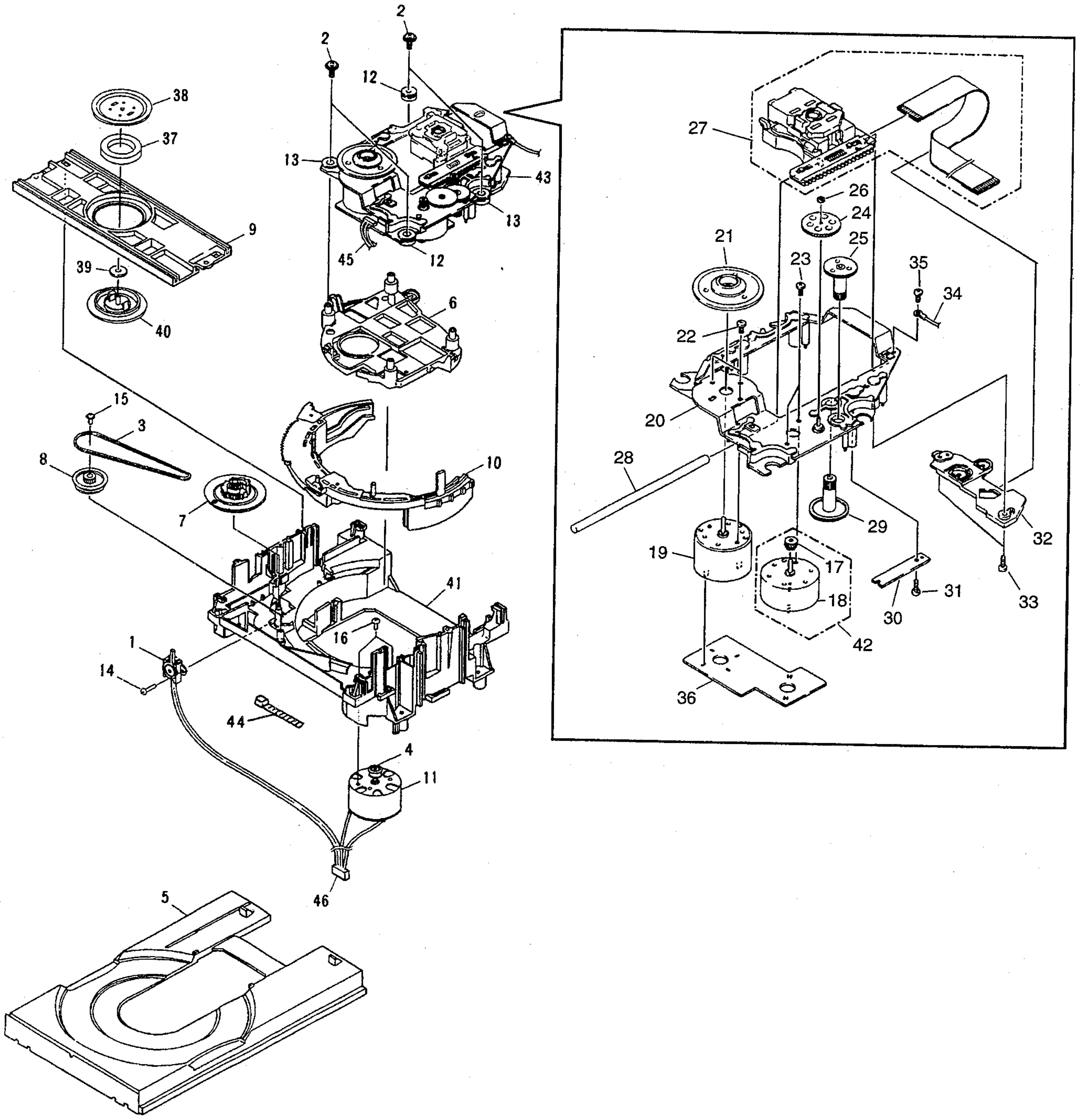
• DISPLAY SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	CD FLDP Unit	AWZ8987
	2	CD CNB Unit	AWZ8988
	3	CD DPKEY Unit	AWZ8989
	4	Leg	AEB7090
	5	Display Button	AAD7409
	6	Top Button	AAD7430
	7	Window	AAK7461
	8	FL Filter	AEC7117
	9	Display Panel	AMB7458
	10	Rear Cover	AMC7013
	11	Screw	BPZ30P100FZK
	12	Screw	PMZ30P060FZK

2.4 SINGLE MECHANISM ASSY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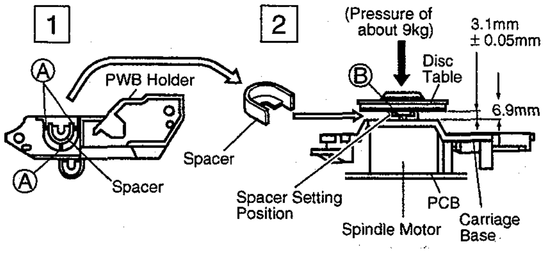
• SINGLE MECHANISM ASSY PARTS LIST

Mark	No.	Description	Part No.
	1	Lever Switch(S601)	DSK1003
	2	Screw	PBA1048
	3	Rubber Belt	PEB1193
	4	Motor Pulley	PNW1634
	5	Tray Black V	PNW2455
	6	Float Base	PNW2032
	7	Drive Gear 2	PNW2369
	8	Gear Pulley	PNW2034
	9	Clamper Base	PNW2375
	10	Clamp Cam	PNW2364
	11	DC Motor/0.75W	PXM1010
	12	Float Rubber B	REB1287
	13	Float Rubber G	REB1288
	14	Screw	BPZ26P080FMC
	15	Screw	Z39 - 019
	16	Screw	PMZ26P040FMC
	17	Pinion Gear	PNW2055
NSP	18	DC Motor (CARRIAGE)	PXM1027
	19	D.C. Motor Assy (SPINDLE)	PEA1235
	20	Carriage Base	PNW2445
	21	Disc Holder	PNW1608
	22	Screw	JFZ20P030FNI
	23	Screw	JFZ17P025FZK
	24	Gear 3	PNW2054
	25	Gear 2	PNW2053
	26	Washer	WT12D032D025
	27	Pick Up Assy-S	PEA1291
	28	Guide Bar	PLA1094
	29	Gear 1	PNW2052
	30	Gear Stopper	PNB1303
	31	Screw	BPZ20P060FMC
	32	PWB Holder	PNW2057
	33	Screw	BPZ26P100FMC
	34	Earth Lead Unit	PDF1104
	35	Screw	BBZ26P060FMC
NSP	36	Mechanism Board Assy	PWX1192
	37	Clamp Magnet	PMF1014
	38	Yoke	PNB1216
NSP	39	H Rubber	PEB1249
	40	Clamper S	PNW1609
	41	Loading Base	PNW2376
	42	D.C. Motor Assy (CARRIAGE)	PEA1246
NSP	43	Servo Mechanism Assy SL	AXA7017
	44	Binder	Z09 - 056
	45	Connector Assy (4P)	RDE1043
	46	Connector Assy (5P)	PDE1239

• How to install the disc table

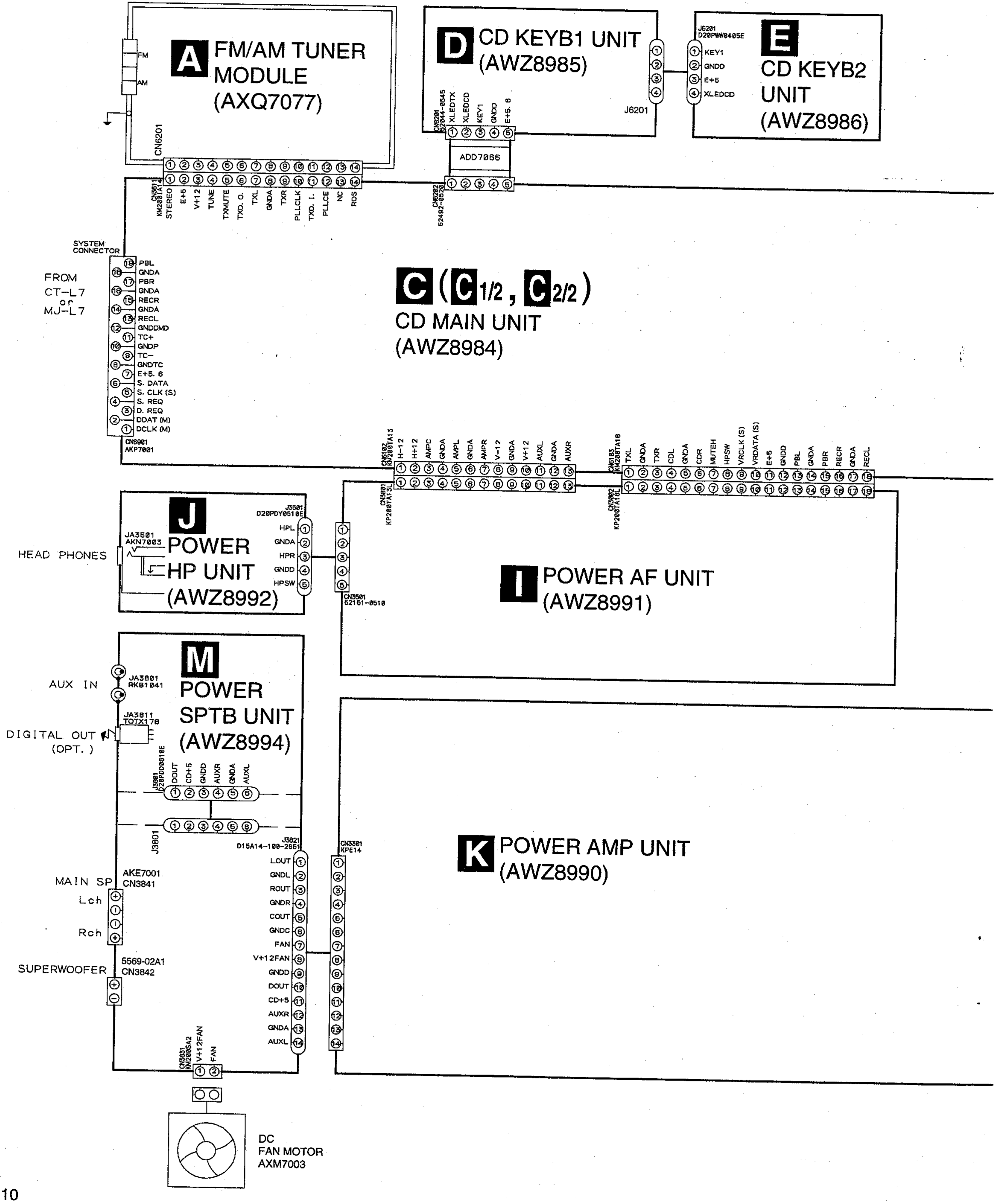
1 Use nipper or other tool to cut the three sections marked Ⓐ figure 1. Then remove the spacer.

2 While supporting the spindle motor shaft with the stopper, put spacer on top of the motor base (angled so it doesn't touch section Ⓑ), and stick the disc table on top (takes about 9 kg pressure). Take off the spacer.

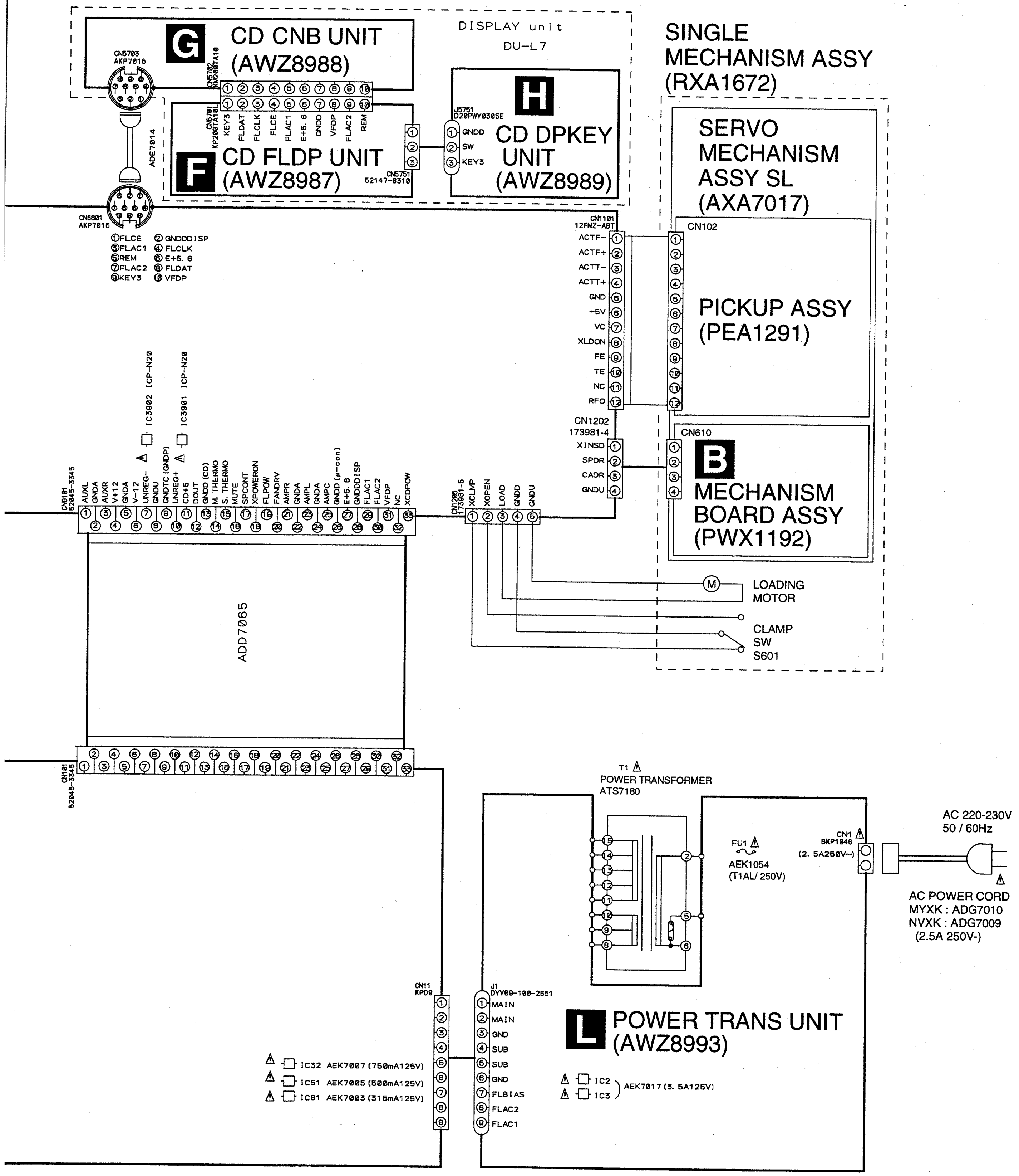


3. SCHEMATIC DIAGRAM

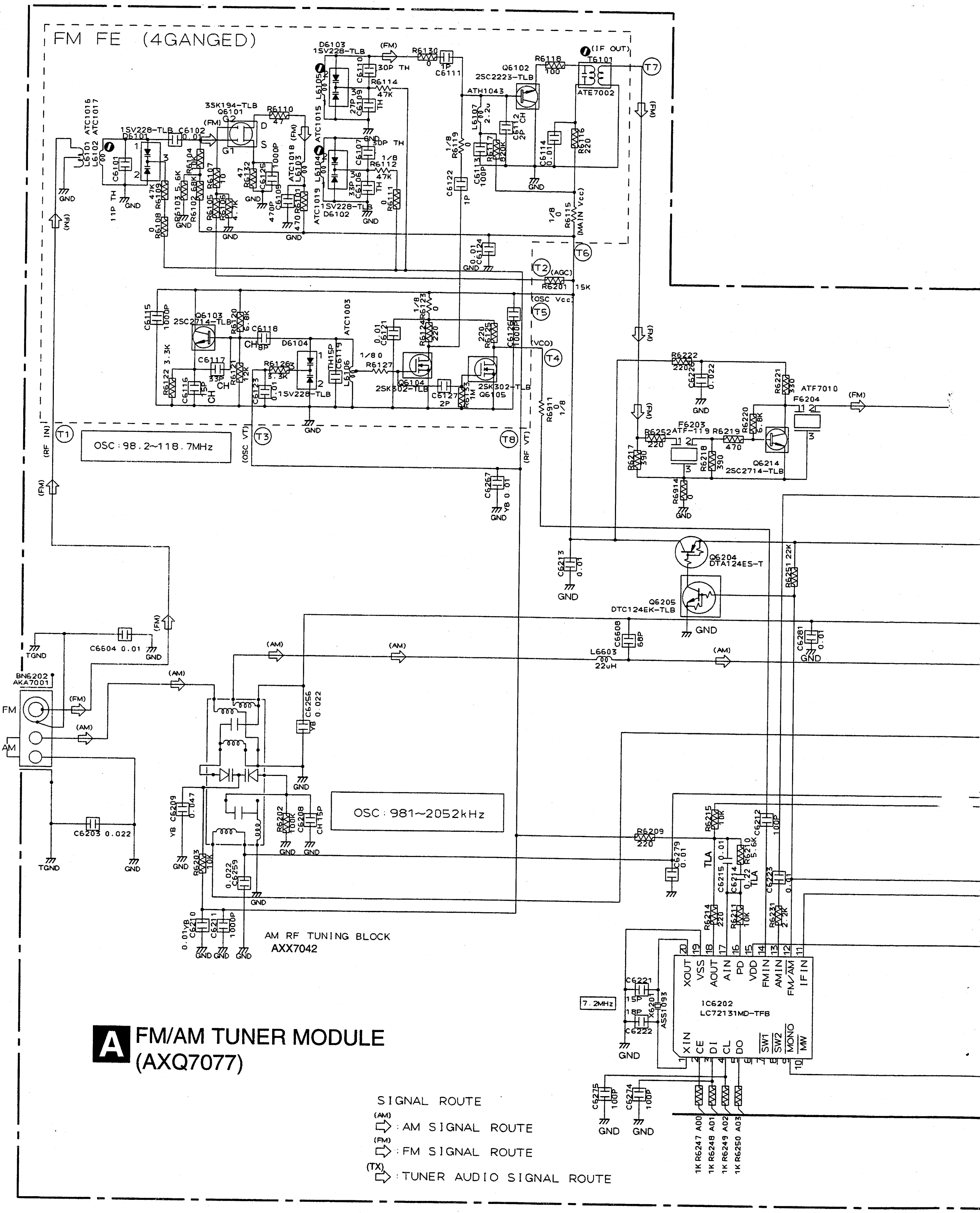
3.1 OVERALL CONNECTION DIAGRAM


A FM/AM TUNER MODULE (AXQ7077)
FM
AM
CN6201
D CD KEYB1 UNIT (AWZ8985)
CN6201 52044-0545
XLEDTX
XLEDCD
KEY1
GNDD
E+5.6
J6201
ADD7066
CN6202 52492-0520
E CD KEYB2 UNIT (AWZ8986)
J6201 D20PWW0405E
KEY1
GNDD
E+5
XLEDCD
CN3611 KM200TA14
STEREO
E+5
V+12
TUNE
TXMUTE
TXD.O.
TXL
GNDA
TXR
PLLCLK
TXD.I.
PLLCE
NC
RDS
SYSTEM CONNECTOR
FROM CT-L7 or MJ-L7
PBL
GNDA
PBR
GNDA
RECR
GNDA
RECL
GNDDMD
TC+
GNDP
TC−
GNDTC
E+5.6
S.DATA
S.CLK (S)
S.REQ
D.REQ
DDAT (M)
DCLK (M)
CN6901 AKP7001
C (C1/2, C2/2) CD MAIN UNIT (AWZ8984)
CN6102 KM200TA13
H−12
H+12
AMPC
GNDA
AMPL
GNDA
AMPR
V−12
GNDA
V+12
AUXL
GNDA
AUXR
CN6103 KM200TA18
TXL
GNDA
TXR
CDL
GNDA
CDR
MUTEH
HPSW
VRCLK (S)
VRDATA (S)
E+5
GNDD
PBL
GNDA
PBR
RECR
GNDA
RECL
CN3001 KP200TA13L
CN3002 KP200TA18L
J POWER HP UNIT (AWZ8992)
HEAD PHONES
JA3501 AKN7003
J3501 D20PDY0510E
HPL
GNDA
HPR
GNDD
HPSW
CN3501 52151-0510
I POWER AF UNIT (AWZ8991)
M POWER SPTB UNIT (AWZ8994)
AUX IN
JA3801 RKB1041
DIGITAL OUT (OPT.)
JA3811 TOTX178
J3801 D20PDD0610E
DOUT
CD+5
GNDD
AUXR
GNDA
AUXL
J3801
J3821 D15A14-100-2851
LOUT
GNDL
ROUT
GNDR
COUT
GNDC
FAN
V+12FAN
GNDD
DOUT
CD+5
AUXR
GNDA
AUXL
MAIN SP
Lch
Rch
AKE7001 CN3841
SUPERWOOFER
5569-02A1 CN3842
CN3831 KM200SA2
V+12FAN
FAN
CN3301 KPE14
K POWER AMP UNIT (AWZ8990)
DC FAN MOTOR AXM7003

Note : When ordering service parts, be sure to refer to
"EXPLODED VIEWS AND PARTS LIST" or "PCB PARTS LIST".


G CD CNB UNIT (AWZ8988)
DISPLAY unit DU-L7
CN5703 AKP7015
CN5702 KM200TA10
CN5701 KP200TA10L
KEY3 FLDAT FLCLK FLCE FLAC1 E+5.6 GNDD VFDP FLAC2 REM
F CD FLDP UNIT (AWZ8987)
CN5751 52147-0310
J5751 D20PWY0305E
GNDD SW KEY3
H CD DPKEY UNIT (AWZ8989)
ADE7014
CN6801 AKP7015
①FLCE ② GNDDDISP
③FLAC1 ④ FLCLK
⑤REM ⑥ E+5.6
⑦FLAC2 ⑧ FLDAT
⑨KEY3 ⑩ VFDP
SINGLE MECHANISM ASSY (RXA1672)
SERVO MECHANISM ASSY SL (AXA7017)
CN1101 12FMZ-ABT
ACTF- ACTF+ ACTT- ACTT+ GND +5V VC XLDON FE TE NC RFO
CN102
PICKUP ASSY (PEA1291)
CN1202 173981-4
XINSD SPDR CADR GNDU
CN610
B MECHANISM BOARD ASSY (PWX1192)
IC3902 ICP-N20
IC3901 ICP-N20
CN8101 52045-3345
AUXL GNDA AUXR V+12 GNDA V-12 UNREG- GNDU GNDTC (GNDP) UNREG+ CD+5 DOUT GNDD (CD) M. THERMO S. THERMO MUTE SPCONT XPOWERON FLPOW FANDRV AMPR GNDA AMPL GNDA AMPC GNDD (μ-con) E+5.6 GNDDDISP FLAC1 FLAC2 VFDP NC XCDPOW
CN1205 173981-5
XCLMP XOPEN LOAD GNDD GNDU
M LOADING MOTOR
CLAMP SW S601
ADD7065
CN101 52045-3345
T1 POWER TRANSFORMER ATS7180
FU1 AEK1054 (T1AL/ 250V)
CN1 BKP1046 (2.5A250V~)
AC 220-230V 50 / 60Hz
AC POWER CORD
MYXK : ADG7010
NVXK : ADG7009
(2.5A 250V-)
CN11 KPD9
J1 DYY09-100-2651
MAIN MAIN GND SUB SUB GND FLBIAS FLAC2 FLAC1
IC32 AEK7007 (750mA125V)
IC51 AEK7005 (500mA125V)
IC61 AEK7003 (315mA125V)
L POWER TRANS UNIT (AWZ8993)
IC2 IC3 AEK7017 (3.5A125V)

3.2 FM/AM TUNER MODULE


FM FE (4GANGED)
D6103 1SV228-TLB
(FM)
R6130
C6111 1P
(IF OUT)
T6101
ATE7002
R6118 100
Q6102 2SC2223-TLB
ATH1043
L6107 2.2u
C6112 2P CH
C6114 0.01
R6116 220
R6119 1/8
C6113 100P
R6117 820K
3SK194-TLB Q6101
R6110 47
G2 G1 D S
1SV228-TLB C6102 0.01
D6101
L6101 L6102
ATC1016 ATC1017
C6101 11P TH
ATC1015 L6105
C6110 30P TH
C6109 27P
R6114 47K
ATC1018 (FM)
L6103
ATC1019 L6104
C6107 30P TH
C6106 33P
R6112 1/8 47K
R6111 0
1SV228-TLB D6102
C6125 1000P
C6105 470P
R6132 47
R6101 470
R6104 10
R6107 10
R6103 5.6K
R6102 68K
R6105 4.7K
R6108 0
R6106 47K
C6122 1P
R6115 1/8 0
(MAIN Vcc)
C6124 0.01
T1 T2 T3 T4 T5 T6 T7 T8
(AGC)
R6201 15K
(OSC Vcc)
(VCO)
C6115 1000P
Q6103 2SC2714-TLB
R6120 6.8K
C6118 8P CH
D6104
ATC1003
C6119 TH15P
L6106
R6123 1/8 0
C6121 0.01
R6124 220
R6125 220
C6126 1000P
R6122 3.3K
C6116 15P CH
C6117 33P CH
R6121 12K
R6126 3.3K
C6123 0.01
1SV228-TLB
R6127 1/8 0
Q6104 2SK302-TLB
C6127 2P
R6133 1M
2SK302-TLB Q6105
R6911 1/8 0
OSC:98.2~118.7MHz
(RF IN)
(OSC VT)
(RF VT)
C6267 YB 0.01
R6222 220
C6220 0.022
R6221 330
ATF7010 F6204
F6203 ATF-119
R6252 220
R6219 470
R6220 6.8K
R6217 390
R6218 390
Q6214 2SC2714-TLB
R6914 0
C6213 0.01
Q6204 DTA124ES-T
Q6205 DTC124EK-TLB
R6251 22K
C6281 0.01
C6608 68P
L6603 22uH
(AM)
(FM)
TGND
C6604 0.01
BN6202 AKA7001
FM
AM
C6256 YB 0.022
C6209 YB 0.047
C6203 0.022
R6202 100K
C6208 CH15P
R6203 10K
C6259 0.022
C6210 0.01YB
C6211 1000P
OSC:981~2052kHz
AM RF TUNING BLOCK AXX7042
R6209 220
C6279 0.01
R6215 10K
C6212 100P
TLA
C6215 0.01
R6210 5.6K
C6214 0.22 TLA
C6223 0.01
R6214 220
R6211 10K
R6231 2.2K
XOUT VSS AOUT AIN PD VDD FMIN AMIN FM/AM IFIN
IC6202 LC72131MD-TFB
XIN CE DI CL DO SW1 SW2 MONO MW
C6221 15P
C6222 18P
X6201 ASS1093
7.2MHz
C6275 100P
C6274 100P
1K R6247 A00
1K R6248 A01
1K R6249 A02
1K R6250 A03
GND

A FM/AM TUNER MODULE (AXQ7077)

SIGNAL ROUTE

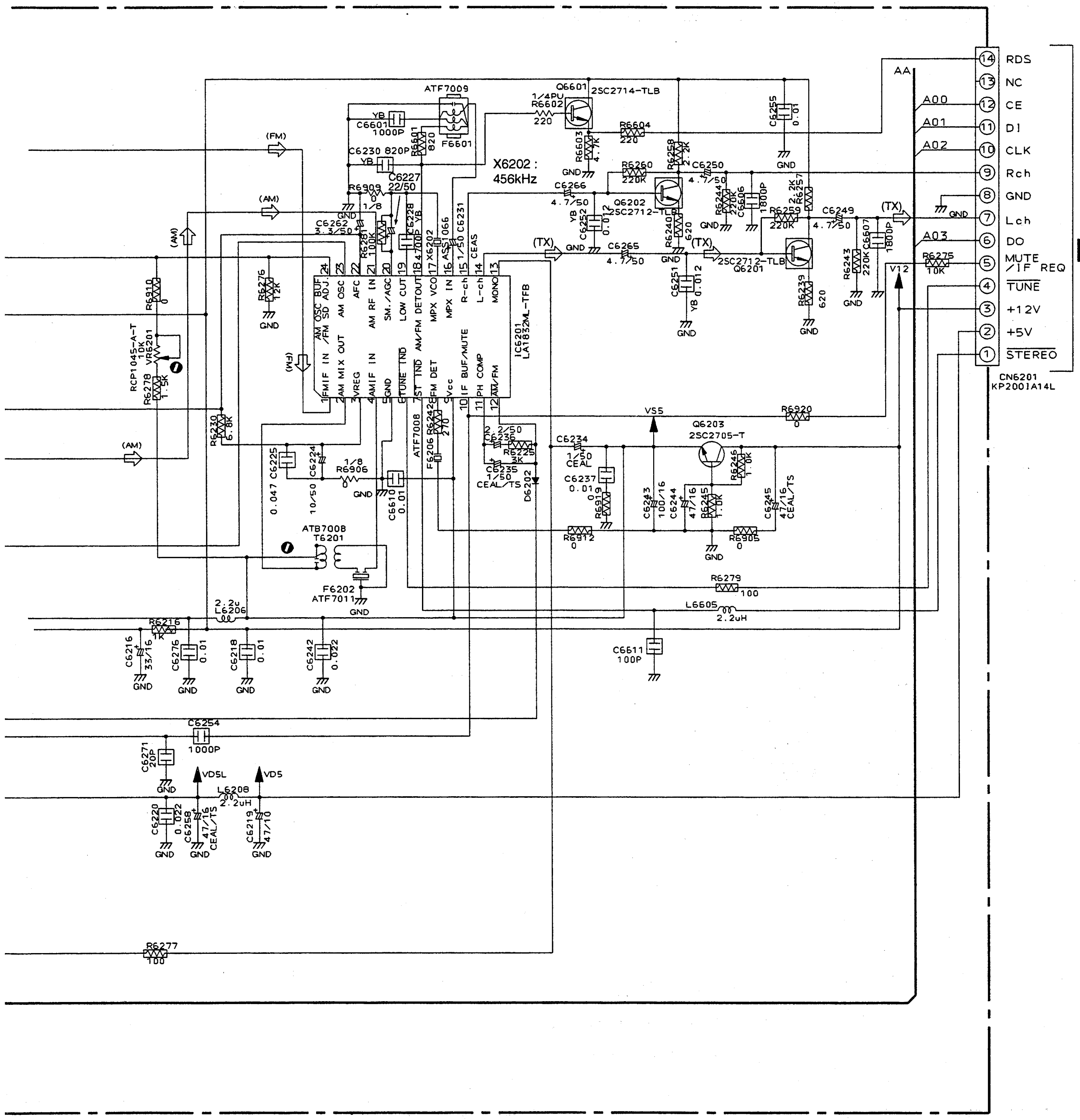
(AM) ⇨ : AM SIGNAL ROUTE

(FM) ⇨ : FM SIGNAL ROUTE

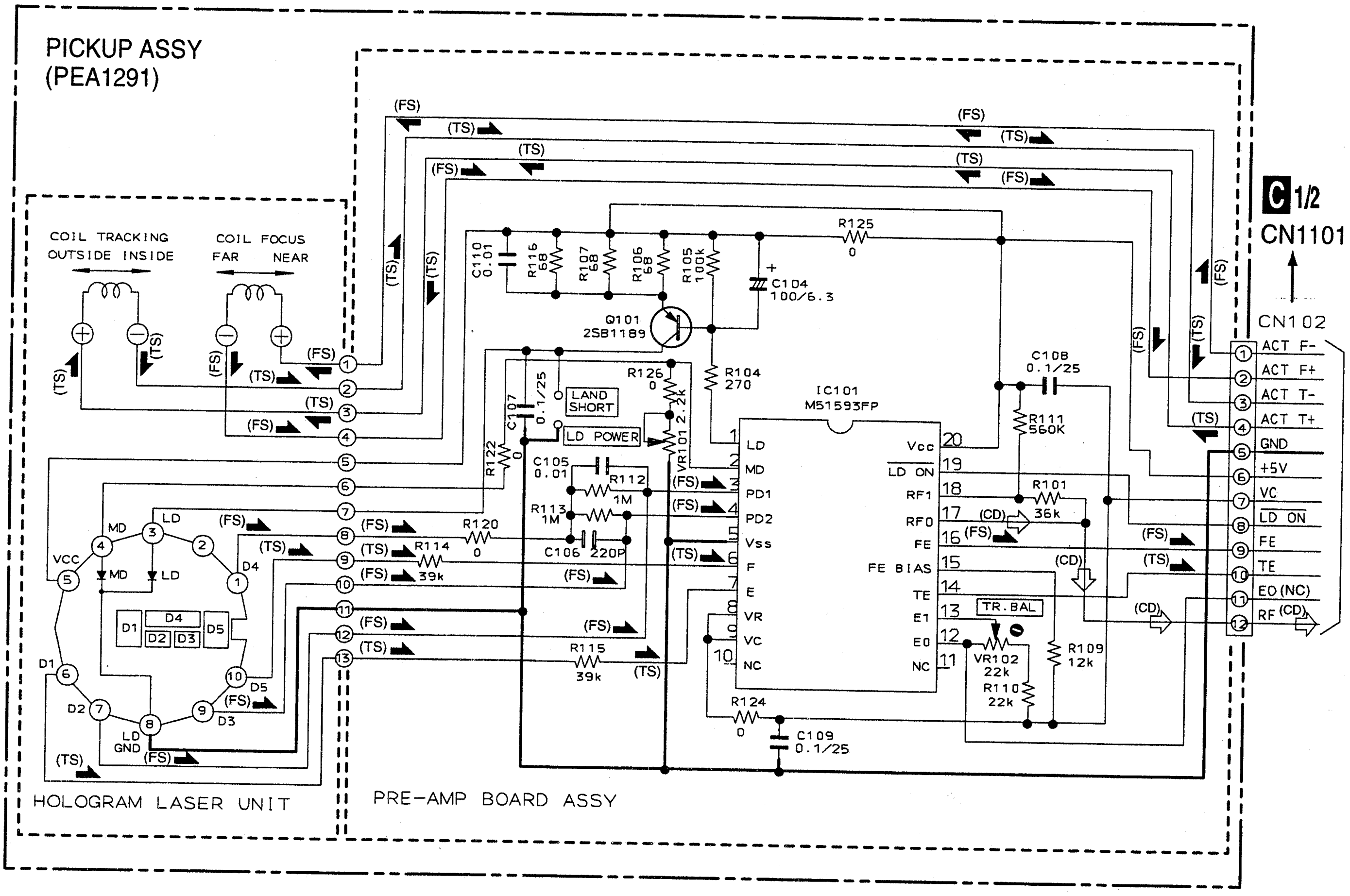
(TX) ⇨ : TUNER AUDIO SIGNAL ROUTE

Notes

1. RESISTORS
   Indicated in Ω, 1/10W±5% Tolerance unless otherwise noted K:kΩ, M:MΩ.
2. CAPACITORS
   Indicated in Capacity (μF)/VOLTAGE (V) unless otherwise noted P:PF.
3. DIODES
   No mark diode is 1SS254.


IC6201 LA1832ML-TFB
FMIF IN
AM MIX OUT
VREG
AMIF IN
GND
TUNE IND
ST IND
FM DET
Vcc
IF BUF/MUTE
PH COMP
AM/FM
AM OSC BUF /FM SD ADJ.
AM OSC
AFC
AM RF IN
SM./AGC
LOW CUT
AM/FM DETOUT
MPX VCO
MPX IN
R-ch
L-ch
MONO
X6202 : 456kHz
ATF7009
F6601
ATB7008 T6201
F6202 ATF7011
ATF7008 F6206
Q6601 2SC2714-TLB
Q6202 2SC2712-TLB
Q6201 2SC2712-TLB
Q6203 2SC2705-T
D6202
RCP1045-A-T VR6201 10K
L6206 2.2u
L6605 2.2uH
L6208 2.2uH
(FM)
(AM)
(TX)
GND
VS5
VD5L
VD5
V12
AA
A00
A01
A02
A03
C6601 1000P
C6230 820P
C6227 22/50
C6262 3.3/50
C6228 4700P
C6231 1/50
C6255 0.01
C6266 4.7/50
C6252 0.012
C6265 4.7/50
C6251 0.012
C6250 4.7/50
C6506 1800P
C6249 4.7/50
C6507 1800P
C6225 0.047
C6224 10/50
C6610 0.01
C6234 1/50 CEAL
C6237 0.01
C6236 2.2/50
C6235 1/50 CEAL/TS
C6243 100/16
C6244 47/16
C6245 47/16 CEAL/TS
C6611 100P
C6216 33/16
C6276 0.01
C6218 0.01
C6242 0.022
C6254 1000P
C6271 20P
C6220 0.022
C6258 47/16 CEAL/TS
C6219 47/10
R6601 820
R6602 220 1/4PU
R6603 4.7K
R6604 220
R6258 2.2K
R6260 220K
R6244 220K
R6240 620
R6257 2.2K
R6259 220K
R6243 220K
R6239 620
R6275 10K
R6909 0 1/8
R6281 100K
R6276 12K
R6910 0
R6278 1.5K
R6230 6.8K
R6906 0 1/8
R6242 270
R6225 3K
R6919 0
R6912 0
R6920 0
R6246 1.0K
R6245 1.0K
R6905 0
R6279 100
R6216 1K
R6277 100
CN6201 KP200IA14L
G 2/2 CN3611
14 RDS
13 NC
12 CE
11 DI
10 CLK
9 Rch
8 GND
7 Lch
6 DO
5 MUTE /IF REQ
4 TUNE
3 +12V
2 +5V
1 STEREO

3.3 PICKUP ASSY


PICKUP ASSY
(PEA1291)
COIL TRACKING
OUTSIDE INSIDE
COIL FOCUS
FAR NEAR
HOLOGRAM LASER UNIT
PRE-AMP BOARD ASSY
MD
LD
VCC
D1
D2
D3
D4
D5
LD GND
C110 0.01
R116 68
R107 68
R106 68
R105 100k
C104 100/6.3
R125 0
Q101 2SB1189
R104 270
R126 0
VR101 2.2k
C107 0.1/25
LAND SHORT
LD POWER
R122 0
C105 0.01
R112 1M
R113 1M
C106 220P
R120 0
R114 39k
R115 39k
R124 0
C109 0.1/25
IC101 M51593FP
LD
MD
PD1
PD2
Vss
F
E
VR
VC
NC
Vcc
LD ON
RF1
RFO
FE
FE BIAS
TE
E1
EO
NC
C108 0.1/25
R111 560K
R101 36k
TR.BAL
VR102 22k
R110 22k
R109 12k
C 1/2
CN1101
CN102
ACT F-
ACT F+
ACT T-
ACT T+
GND
+5V
VC
LD ON
FE
TE
EO (NC)
RF
(FS)
(TS)
(CD)

SIGNAL ROUTE

(CD) ⇨ :CD AUDIO SIGNAL ROUTE

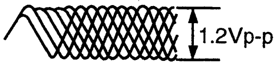
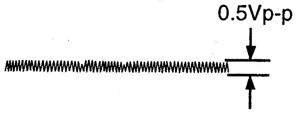
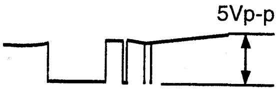
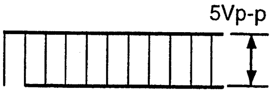
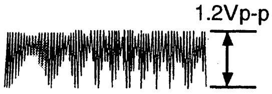
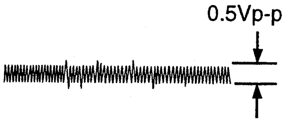
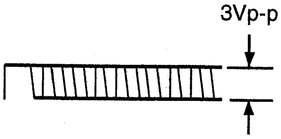
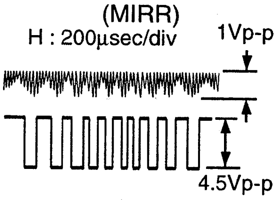
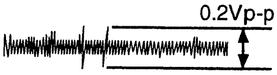
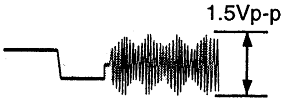
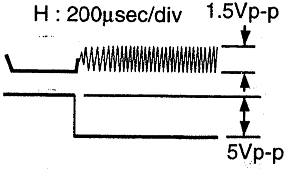
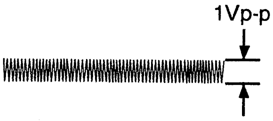
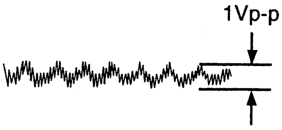
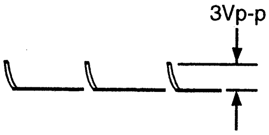
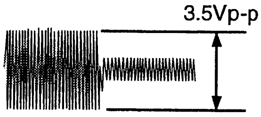
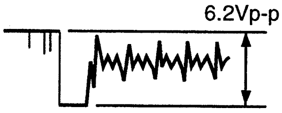
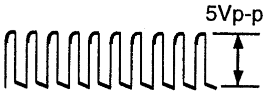
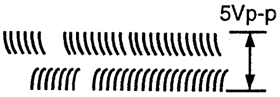
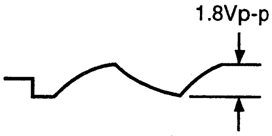
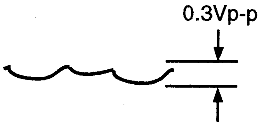
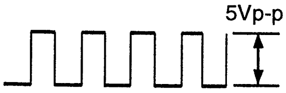
(FS) ➡ : FOCUS SERVO LOOP LINE

(TS) ➡ : TRACKING SERVO LOOP LINE

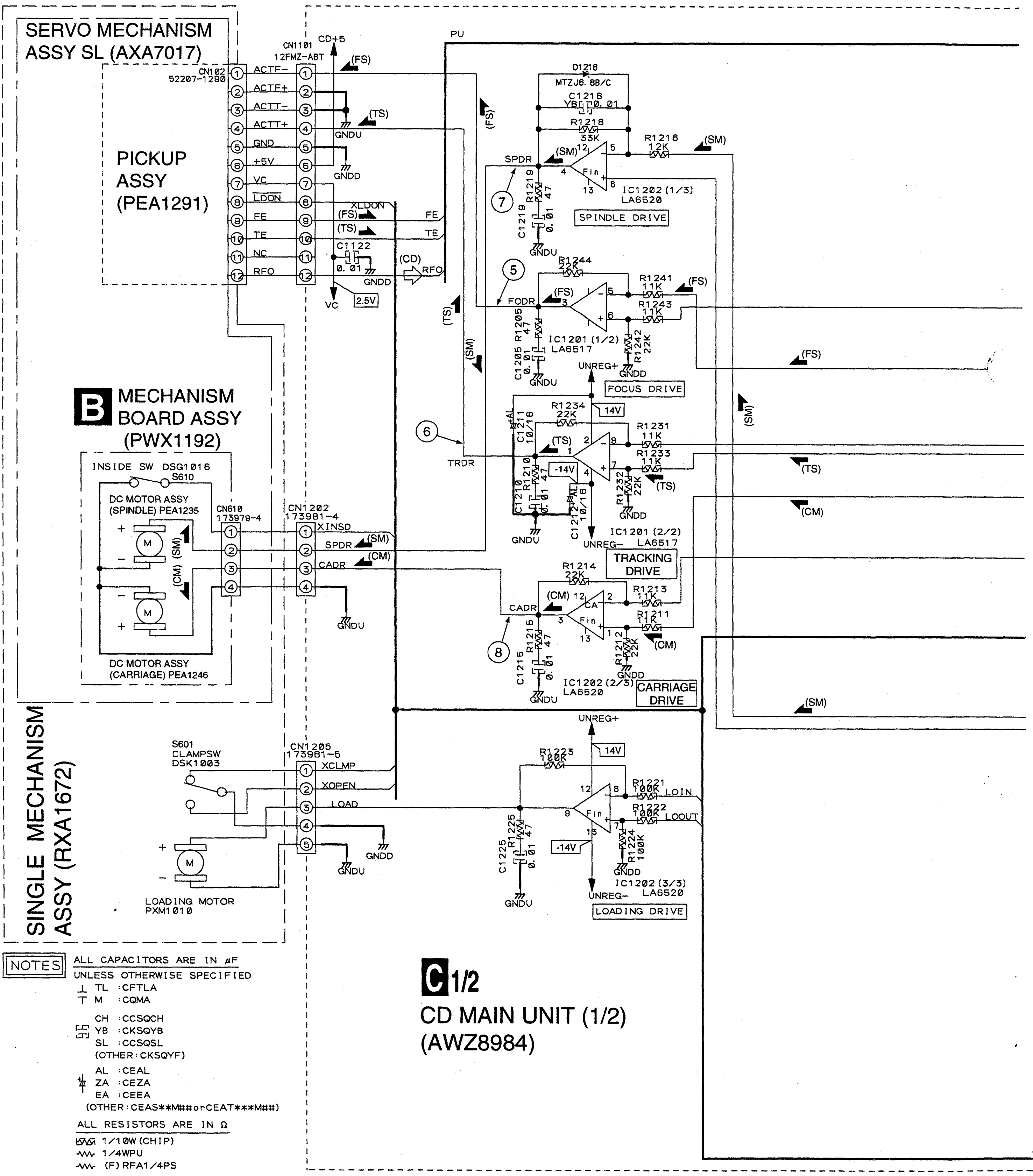
• WAVEFORMS OF CD MAIN UNIT

Note: The encircled numbers denote measuring points in the schematic diagram.

*1 50T-JUMP: After switching to the pause mode, press the manual search key.
*2 FOCUS-IN: Press the play key without loading a disc.

② TP1- Pin 1 : PLAY MODE (RF) H : 500nsec/div 	⑤ IC1201- Pin 3 : PLAY MODE (FODR) H : 1msec/div 	⑧ IC1202- Pin 3 : TRACK SEARCH MODE (CADR) H : 200msec/div 	⑲ IC1301- Pin 52 : PLAY MODE (1kHz) (PCMD) H : 500nsec/div 
② TP1- Pin 1 : TRACK SEARCH MODE (RF) H : 200μsec/div 	⑥ IC1201- Pin 1 : PLAY MODE (TRDR) H : 1msec/div 	⑨ IC1101- Pin 32 : PLAY MODE (EFM) H : 500nsec/div 	㉓ TRACK SEARCH MODE Upper:TP1-Pin1(RF) Lower:IC1101-Pin 29 (MIRR) H : 200μsec/div 
③ TP1- Pin 6 : PLAY MODE (FOER) H : 10msec/div 	⑥ IC1201- Pin 1 : 50T-JUMP(*1) MODE (TRDR) H : 1msec/div 		㉔ PLAY MODE Upper:TP1-Pin1(RF) Lower:IC1101-Pin 30 (DFCT) H : 200μsec/div 
④ TP1- Pin 2 : PLAY MODE (TRER) H : 10msec/div 	⑦ IC1202- Pin 4 : PLAY MODE (SPDR) H : 50msec/div 		㉝ IC1301- Pin 27 : PLAY MODE (MDP) H : 2μsec/div 
④ TP1- Pin 2 : 50T- JUMP(*1)MODE (TRER) H : 1msec/div 	⑦ IC1202- Pin 4 : TRACK SEARCH MODE (SPDR) H : 50msec/div 	⑯ IC1301- Pin 54 : PLAY MODE (1kHz) (BCLK) H : 500nsec/div 	(53) IC1301- Pin 38 : PLAY MODE (PCO) H : 10μsec/div 
⑤ IC1201- Pin 3 : FOCUS-IN(*2) MODE (FODR) H : 200msec/div 	⑧ IC1202- Pin 3 : PLAY MODE (CADR) H : 2sec/div 	⑱ IC1301- Pin 50 : PLAY MODE (1kHz) (LRCK) H : 10μsec/div 	

3.4 MECHANISM BOARD ASSY AND CD MAIN UNIT(1/2)

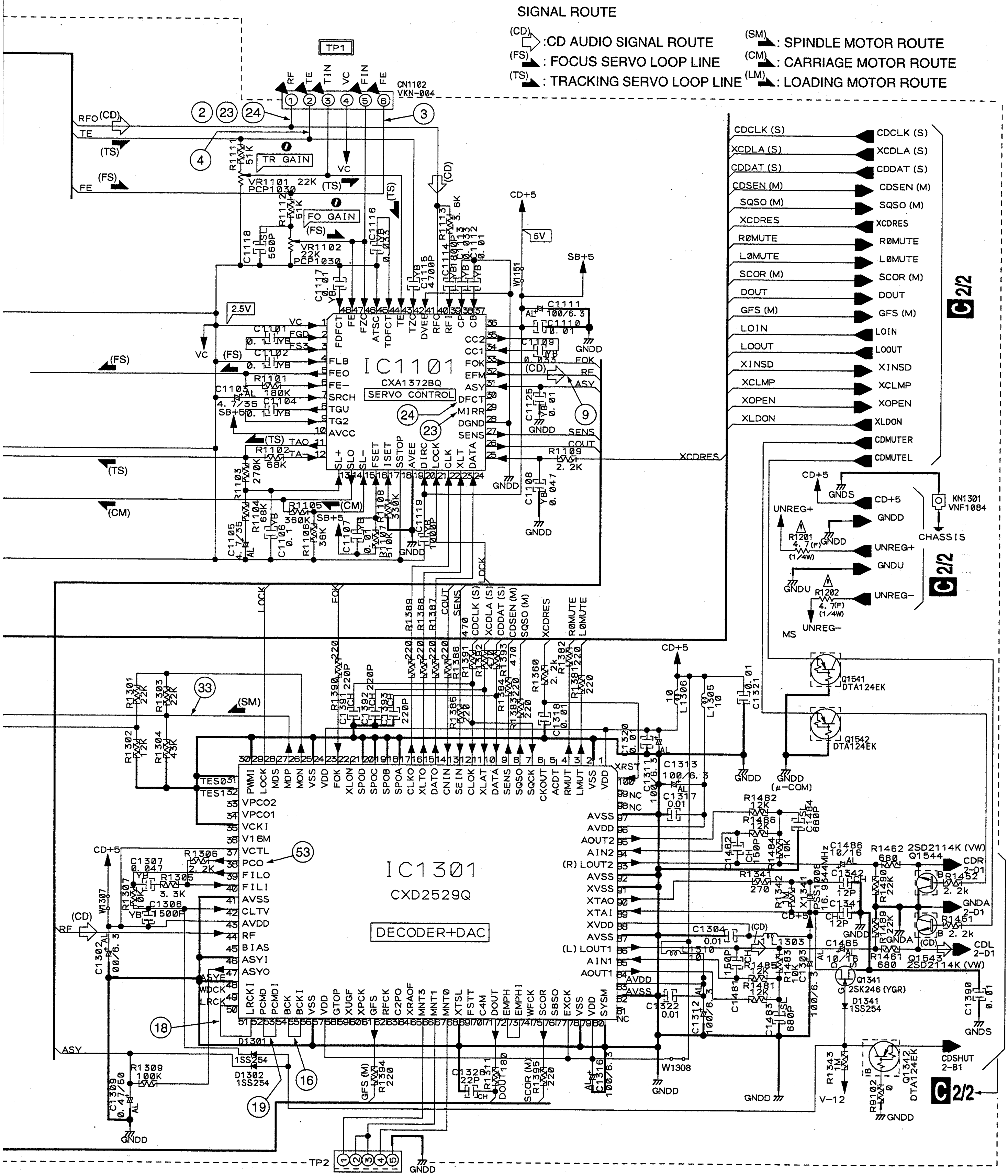

SERVO MECHANISM ASSY SL (AXA7017)
PICKUP ASSY (PEA1291)
CN102 52207-1290
CN1101 12FMZ-ABT
CD+5
ACTF−
ACTF+
ACTT−
ACTT+
GND
+5V
VC
LDON
FE
TE
NC
RFO
(FS)
(TS)
GNDU
GNDD
XLDON
C1122 0.01
(CD)
RFO
2.5V
PU
D1218 MTZJ6.8B/C
C1218 YB 0.01
R1218 33K
R1216 12K
(SM)
SPDR
IC1202 (1/3) LA6520
SPINDLE DRIVE
R1219 47
C1219 0.01
R1244 22K
R1241 11K
R1243 11K
FODR
R1205 47
C1205 0.01
IC1201 (1/2) LA6517
R1242 22K
UNREG+
FOCUS DRIVE
R1234 22K
14V
C1211 10/16
R1231 11K
R1233 11K
TRDR
R1210 47
C1210 0.01
-14V
C1212 10/16
R1232 22K
IC1201 (2/2) LA6517
UNREG−
TRACKING DRIVE
(CM)
B MECHANISM BOARD ASSY (PWX1192)
INSIDE SW DSG1016 S610
DC MOTOR ASSY (SPINDLE) PEA1235
DC MOTOR ASSY (CARRIAGE) PEA1246
CN610 173979-4
CN1202 173981-4
XINSD
SPDR
CADR
R1214 22K
R1213 11K
R1211 11K
CA
Fin
R1215 47
C1215 0.01
R1212 22K
IC1202 (2/3) LA6520
CARRIAGE DRIVE
SINGLE MECHANISM ASSY (RXA1672)
S601 CLAMPSW DSK1003
CN1205 173981-5
XCLMP
XOPEN
LOAD
LOADING MOTOR PXM1010
R1223 100K
R1221 100K
LOIN
R1222 100K
LOOUT
R1225 47
C1225 0.01
R1224 100K
IC1202 (3/3) LA6520
LOADING DRIVE
C 1/2 CD MAIN UNIT (1/2) (AWZ8984)

NOTES

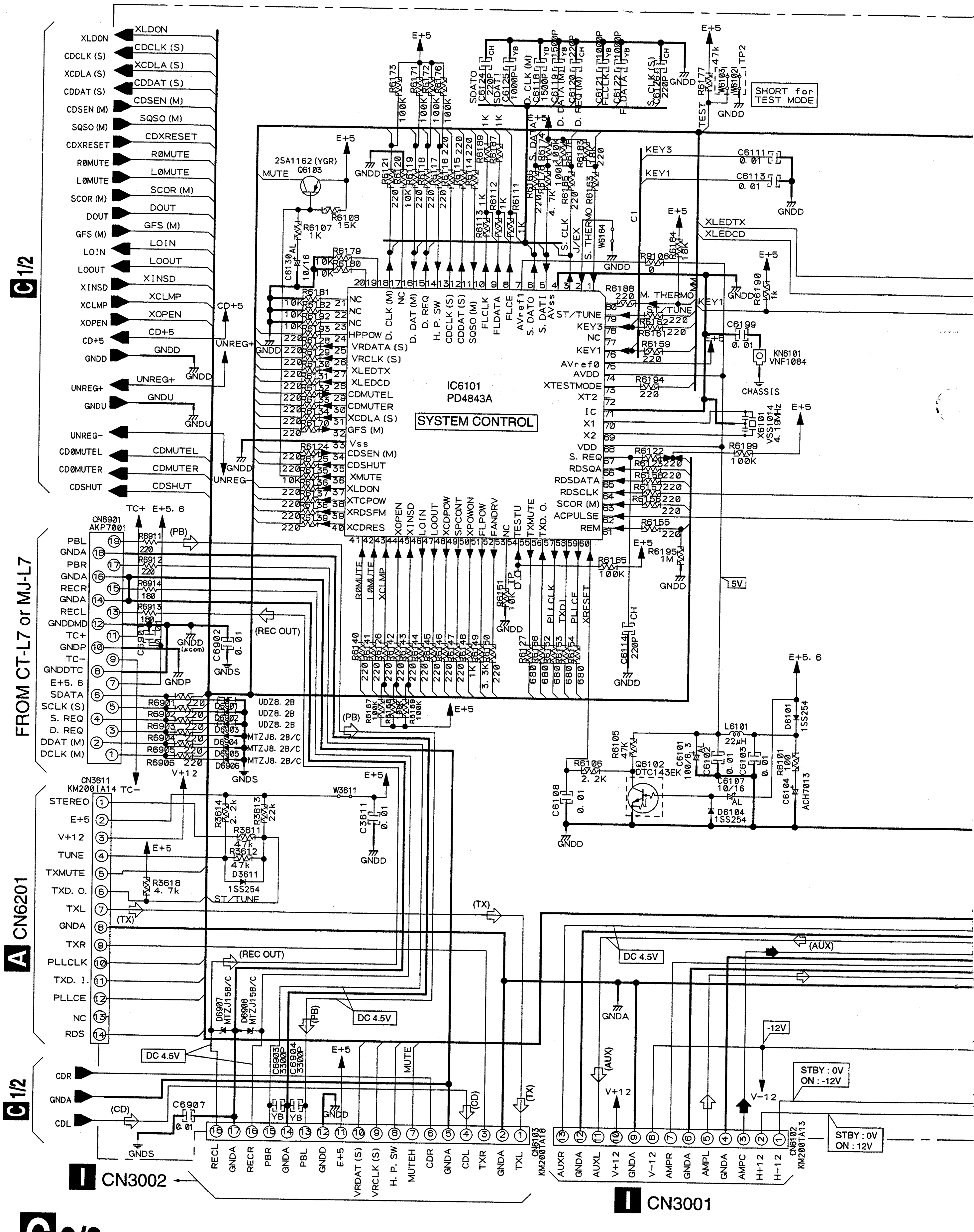
ALL CAPACITORS ARE IN µF
UNLESS OTHERWISE SPECIFIED
TL :CFTLA
M :CQMA
CH :CCSQCH
YB :CKSQYB
SL :CCSQSL
(OTHER:CKSQYF)
AL :CEAL
ZA :CEZA
EA :CEEA
(OTHER:CEAS**M##orCEAT***M##)

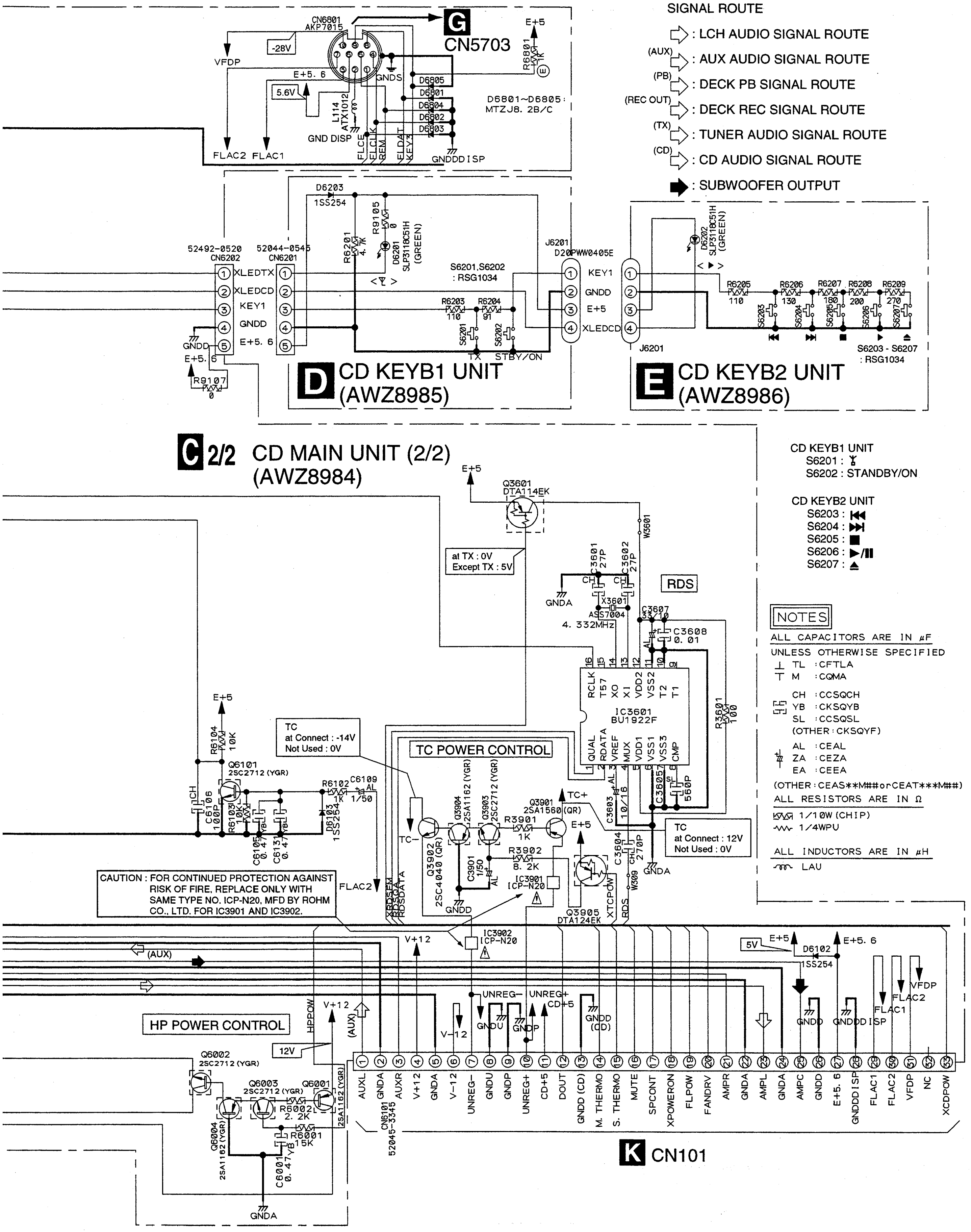
ALL RESISTORS ARE IN Ω
1/10W (CHIP)
1/4WPU
(F) RFA1/4PS

ALL INDUCTORS ARE IN µH
LAU


SIGNAL ROUTE
(CD) :CD AUDIO SIGNAL ROUTE
(FS) : FOCUS SERVO LOOP LINE
(TS) : TRACKING SERVO LOOP LINE
(SM) : SPINDLE MOTOR ROUTE
(CM) : CARRIAGE MOTOR ROUTE
(LM) : LOADING MOTOR ROUTE
TP1
RF TE TIN VC FIN FE
CN1102 VKN-004
RFO (CD)
TE
FE
TR GAIN
FO GAIN
VR1101 22K PCP1030
VR1102 22K PCP1030
R1111 51K
R1112 51K
C1118 560P
C1116 0.033
C1117 0.01
C1115 4700P
R1113 3.6K
C1114 800P
C1113 0.033
C1112 0.01
CD+5
5V
SB+5
W1151
C1111 100/6.3
C1110 0.01
GNDD
2.5V
VC
IC1101
CXA1372BQ
SERVO CONTROL
FDFCT FE FZC ATSC TDFCT TE TZC DVEE RFO RFI CP CB
VC FGD FS3 FLB FEO FE- SRCH TGU TG2 AVCC TAO TA
CC2 CC1 FOK EFM ASY DFCT MIRR DGND SENS COUT
SL+ SLO SL- FSET ISET SSTOP AVEE DIRC LOCK CLK XLT DATA
C1101 0.1 C1102 0.1 R1101 180K C1103 4.7/35 C1104 0.1
R1102 68K R1103 270K R1104 68K R1105 360K R1106 36K
C1105 4.7/35 C1106 0.1 C1107 0.01 R1107 510K R1108 330K C1119 1000P
C1109 0.033 C1125 0.01 R1109 2.2K C1108 0.047
CDCLK (S) XCDLA (S) CDDAT (S) CDSEN (M) SQSO (M) XCDRES R0MUTE L0MUTE SCOR (M) DOUT GFS (M) LOIN LOOUT XINSD XCLMP XOPEN XLDON CDMUTER CDMUTEL
C 2/2
CD+5 GNDS KN1301 VNF1084 GNDD CHASSIS UNREG+ GNDU UNREG-
R1201 4.7(F) (1/4W) R1202 4.7(F) (1/4W)
MS
Q1541 DTA124EK
Q1542 DTA124EK
GNDD (μ-COM)
LOCK FOK COUT SENS
R1389 R1388 R1387 R1386 R1390 220
C1391 220P C1392 220P C1393 220P
R1391 470 R1392 R1393 R1384 R1385 R1383 R1360 2.2k R1382 R1381 220
C1318 0.01 C1320 0.01 C1311 100/6.3 C1313 100/6.3 C1317 0.01
L1306 10 L1305 10 C1321 0.01
R1301 22K R1303 22K R1302 12K R1304 43K
IC1301
CXD2529Q
DECODER+DAC
PWMI LOCK MDS MDP MON VSS VDD FOK XLON SPOD SPOC SPOB SPOA CLKO XLTO DATO CNIN SEIN CLOK XLAT DATA SENS SQSO SQCK CKOUT ACDT RMUT LMUT VSS VDD
TES0 TES1 VPCO2 VPCO1 VCKI V16M VCTL PCO FILO FILI AVSS CLTV AVDD RF BIAS ASYI ASYO ASYE WDCK LRCK
XRST NC NC AVSS AVDD AOUT2 AIN2 (R) LOUT2 AVSS XVSS XTAO XTAI XVDD AVSS (L) LOUT1 AIN1 AOUT1 AVDD AVSS
LRCKI PCMD PCMDI BCK BCKI VSS VDD GTOP XUGF XPCK GFS RFCK C2PO XRAOF MNT3 MNT1 MNT0 XTSL FSTT C4M DOUT EMPH EMPHI WFCK SCOR SBSO EXCK VSS VDD SYSM
C1307 0.047 R1306 2.2K R1305 3.3K R1307 10K C1306 1500P W1307
C1302 100/6.3
R1309 100K C1309 0.47/50
D1301 1SS254 D1302 1SS254
ASY
R1394 220 C1329 22P R1311 DOUT 180 R1395 220 C1316 100/6.3 W1308
C1304 0.01 L1303 L1310 10 C1322 0.01 C1312 100/6.3 C1303 100/6.3
R1482 12K R1486 12K C1484 680P C1482 150P R1484 10K R1341 270 R1342 X1341 16.9344MHz C1342 12P C1341 12P
C1486 10/16 R1462 680 Q1544 2SD2114K (VW) R1490 22K R1452 2.2k R1489 22K R1451 2.2k
CDR 2-D1 GNDA 2-D1 CDL 2-D1
C1485 10/16 R1461 680 Q1543 2SD2114K (VW)
C1481 150P R1485 R1483 10K R1481 12K C1483 680P
Q1341 2SK246 (YGR) D1341 1SS254
C1390 0.01 GNDS
R1343 1M V-12
Q1342 DTA124EK R9102 0
CDSHUT 2-B1
TP2
GFS (M) SCOR (M)
(2) (3) (4) (9) (16) (18) (19) (23) (24) (33) (53)

3.5 CD MAIN (2/2), CD KEYB1 AND CD KEYB2 UNITS


C1/2
XLDON
CDCLK (S)
XCDLA (S)
CDDAT (S)
CDSEN (M)
SQSO (M)
CDXRESET
R0MUTE
L0MUTE
SCOR (M)
DOUT
GFS (M)
LOIN
LOOUT
XINSD
XCLMP
XOPEN
CD+5
GNDD
UNREG+
GNDU
UNREG-
CD0MUTEL
CD0MUTER
CDSHUT
IC6101
PD4843A
SYSTEM CONTROL
2SA1162 (YGR)
Q6103
MUTE
SHORT for TEST MODE
TP2
KEY3
KEY1
XLEDTX
XLEDCD
M. THERMO
ST/TUNE
KN6101
VNF1084
CHASSIS
X6101
VSS1014
4.19MHz
5V
CN6901
AKP7001
FROM CT-L7 or MJ-L7
PBL
GNDA
PBR
RECR
RECL
GNDDMD
TC+
GNDP
TC-
GNDDTC
E+5. 6
SDATA
SCLK (S)
S. REQ
D. REQ
DDAT (M)
DCLK (M)
(PB)
(REC OUT)
UDZ8. 2B
MTZJ8. 2B/C
CN3611
KM200IA14
A CN6201
STEREO
E+5
V+12
TUNE
TXMUTE
TXD. O.
TXL
GNDA
TXR
PLLCLK
TXD. I.
PLLCE
NC
RDS
Q6102
DTC143EK
L6101
22μH
D6101
1SS254
ACH7013
D6104
(TX)
(AUX)
DC 4.5V
-12V
STBY : 0V
ON : -12V
STBY : 0V
ON : 12V
V-12
D6907
MTZJ15B/C
D6908
MTZJ15B/C
C1/2
CDR
GNDA
CDL
(CD)
C6907
GNDS
CN6103
KM200TA16
RECL
GNDA
RECR
PBR
GNDA
PBL
GNDD
E+5
VRDAT (S)
VRCLK (S)
H. P. SW
MUTEH
CDR
GNDA
CDL
TXR
GNDA
TXL
CN6102
KM200TA13
AUXR
GNDA
AUXL
V+12
GNDA
V-12
AMPR
GNDA
AMPL
GNDA
AMPC
H+12
H-12
I CN3002
I CN3001


CN6801
AKP7015
G
CN5703
-28V
VFDP
E+5. 6
5.6V
GNDS
L114
ATX1012
GND DISP
FLCE
ELCLK
REM
ELDAT
KEY3
FLAC2
FLAC1
D6805
D6801
D6804
D6802
D6803
GNDDDISP
D6801~D6805:
MTZJ8. 2B/C
E+5
R6801
1K
D6203
1SS254
R9105
0
R6201
4.7K
D6201
SLP3118C51H
(GREEN)
52492-0520
CN6202
52044-0545
CN6201
XLEDTX
XLEDCD
KEY1
GNDD
E+5. 6
E+5. 6
R9107
0
S6201,S6202
: RSG1034
R6203
110
R6204
91
S6201
S6202
TX
STBY/ON
J6201
D20PWW0405E
KEY1
GNDD
E+5
XLEDCD
J6201
D6202
SLP3118C51H
(GREEN)
R6205
110
R6206
130
R6207
180
R6208
200
R6209
270
S6203
S6204
S6205
S6206
S6207
S6203 - S6207
: RSG1034
E+5
Q3601
DTA114EK
W3601
at TX : 0V
Except TX : 5V
C3601
27P
C3602
27P
CH
CH
GNDA
X3601
ASS7004
4. 332MHz
RDS
C3607
33/10
C3608
0. 01
AL
RCLK
T57
XO
XI
VDD2
VSS2
T2
T1
IC3601
BU1922F
QUAL
RDATA
VREF
MUX
VDD1
VSS1
VSS3
CMP
R3601
100
C3603
10/16
C3605
560P
SL
E+5
R6104
10K
Q6101
2SC2712 (YGR)
C6106
100P
R6103
10K
C6105
0.47
C6131
0.47
YB
R6102
1K
C6109
1/50
AL
D6103
1SS254
TC
at Connect : -14V
Not Used : 0V
TC POWER CONTROL
Q3904
2SA1162 (YGR)
Q3903
2SC2712 (YGR)
Q3902
2SC4040 (QR)
Q3901
2SA1560 (QR)
TC–
TC+
E+5
R3901
1K
R3902
8. 2K
C3901
1/50
GNDD
IC3901
ICP-N20
Q3905
DTA124EK
C3604
270P
W309
GNDA
TC
at Connect : 12V
Not Used : 0V
FLAC2
XRDSEM
RDSCLK
RDSDATA
XTCPOW
RDS
V+12
IC3902
ICP-N20
(AUX)
5V
E+5
E+5. 6
D6102
1SS254
VFDP
FLAC2
FLAC1
UNREG–
UNREG+
CD+5
V–12
GNDU
GNDP
GNDD
(CD)
GNDD
GNDDDISP
HPPOW
V+12
(AUX)
12V
HP POWER CONTROL
Q6002
2SC2712 (YGR)
Q6003
2SC2712 (YGR)
Q6001
2SA1162 (YGR)
Q6004
2SA1162 (YGR)
R6002
2. 2K
R6001
15K
C6001
0.47
YB
GNDA
CN6101
52045-3345
1 AUXL
2 GNDA
3 AUXR
4 V+12
5 GNDA
6 V–12
7 UNREG–
8 GNDU
9 GNDP
10 UNREG+
11 CD+5
12 DOUT
13 GNDD (CD)
14 M. THERMO
15 S. THERMO
16 MUTE
17 SPCONT
18 XPOWERON
19 FLPOW
20 FANDRV
21 AMPR
22 GNDA
23 AMPL
24 GNDA
25 AMPC
26 GNDD
27 E+5. 6
28 GNDDDISP
29 FLAC1
30 FLAC2
31 VFDP
32 NC
33 XCDPOW
K CN101

SIGNAL ROUTE

⇨ : LCH AUDIO SIGNAL ROUTE
(AUX) ⇨ : AUX AUDIO SIGNAL ROUTE
(PB) ⇨ : DECK PB SIGNAL ROUTE
(REC OUT) ⇨ : DECK REC SIGNAL ROUTE
(TX) ⇨ : TUNER AUDIO SIGNAL ROUTE
(CD) ⇨ : CD AUDIO SIGNAL ROUTE
➡ : SUBWOOFER OUTPUT

D CD KEYB1 UNIT
(AWZ8985)

E CD KEYB2 UNIT
(AWZ8986)

C 2/2 CD MAIN UNIT (2/2)
(AWZ8984)

CD KEYB1 UNIT
S6201 : ⏻
S6202 : STANDBY/ON

CD KEYB2 UNIT
S6203 : ⏮
S6204 : ⏭
S6205 : ■
S6206 : ▶/⏸
S6207 : ⏏

NOTES

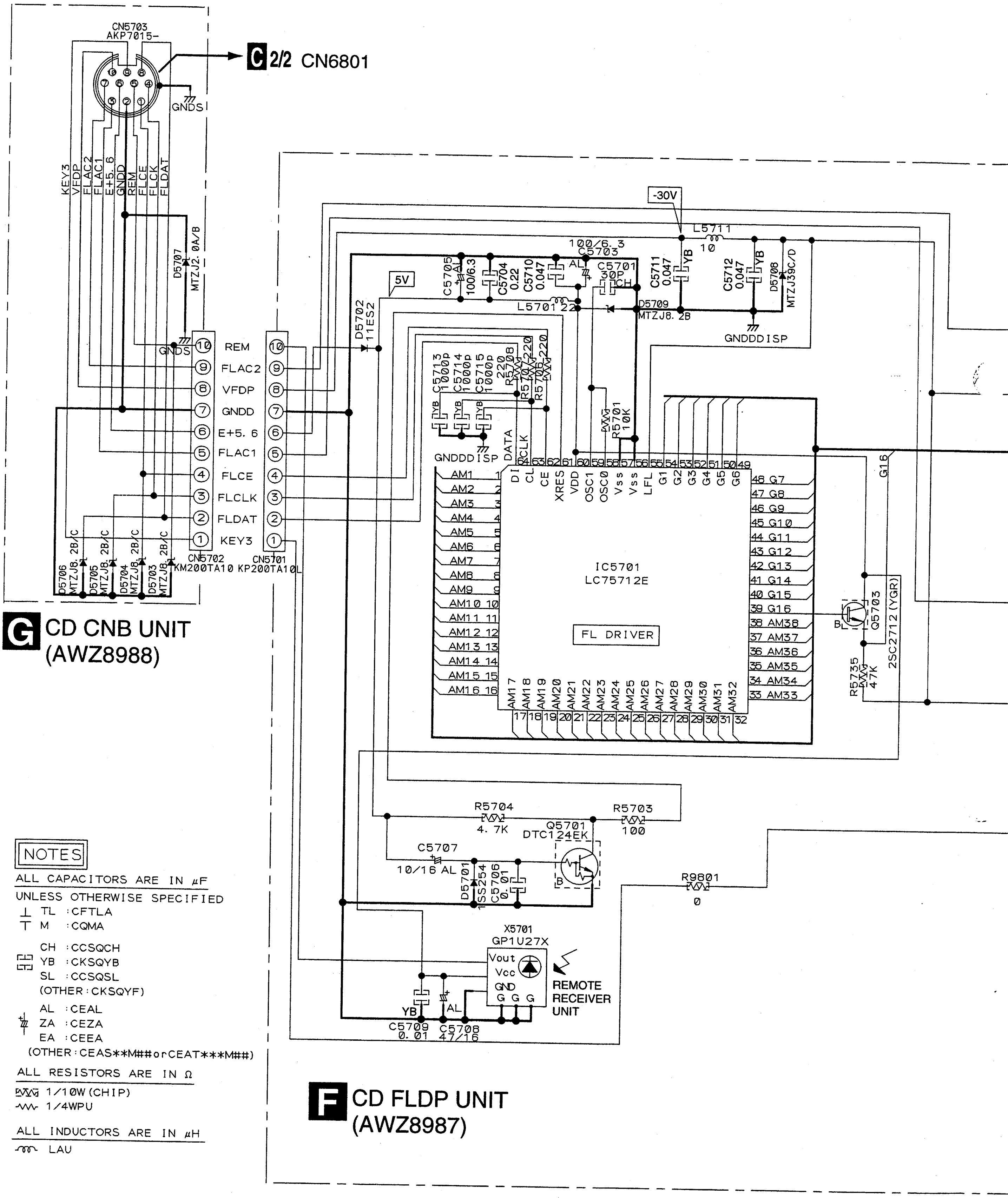
ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED
TL :CFTLA
M :CQMA
CH :CCSQCH
YB :CKSQYB
SL :CCSQSL
(OTHER : CKSQYF)
AL :CEAL
ZA :CEZA
EA :CEEA
(OTHER : CEAS**M##orCEAT***M##)

ALL RESISTORS ARE IN Ω
1/10W (CHIP)
1/4WPU

ALL INDUCTORS ARE IN μH
LAU

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-N20, MFD BY ROHM CO., LTD. FOR IC3901 AND IC3902.

3.6 CD FLDP, CD CNB AND CD DPKEY UNITS


CN5703
AKP7015-
C 2/2 CN6801
GNDS
KEY3
VFDP
FLAC2
FLAC1
E+5.6
GNDD
REM
FLCE
FLCLK
FLDAT
D5707
MTZJ2.0A/B
REM
FLAC2
VFDP
GNDD
E+5.6
FLAC1
FLCE
FLCLK
FLDAT
KEY3
D5706 MTZJ8.2B/C
D5705 MTZJ8.2B/C
D5704 MTZJ8.2B/C
D5703 MTZJ8.2B/C
CN5702
KM200TA10
CN5701
KP200TA10L
G CD CNB UNIT
(AWZ8988)
5V
D5702
11ES2
-30V
L5711
10
100/6.3
C5703
C5705 100/6.3 AL
C5704 0.22
C5710 0.047
C5701 30P CH
AL
L5701 22
D5709
MTZJ8.2B
C5711 0.047 YB
C5712 0.047 YB
D5708
MTZJ39C/D
GNDDDISP
C5713 1000p YB
C5714 1000p YB
C5715 1000p YB
R5708 220
R5707 220
R5706 220
R5701 10K
GNDDDISP
DATA
CLK
DI CL CE XRES VDD OSC1 OSC0 Vss Vss LFL G1 G2 G3 G4 G5 G6
64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49
AM1 1
AM2 2
AM3 3
AM4 4
AM5 5
AM6 6
AM7 7
AM8 8
AM9 9
AM10 10
AM11 11
AM12 12
AM13 13
AM14 14
AM15 15
AM16 16
48 G7
47 G8
46 G9
45 G10
44 G11
43 G12
42 G13
41 G14
40 G15
39 G16
38 AM38
37 AM37
36 AM36
35 AM35
34 AM34
33 AM33
AM17 AM18 AM19 AM20 AM21 AM22 AM23 AM24 AM25 AM26 AM27 AM28 AM29 AM30 AM31 AM32
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
IC5701
LC75712E
FL DRIVER
G16
Q5703
2SC2712 (YGR)
B
R5735
47K
R5704
4.7K
R5703
100
Q5701
DTC124EK
B
C5707
10/16 AL
D5701
1SS254
C5706
0.01
R9801
0
X5701
GP1U27X
Vout
Vcc
GND
G G G
REMOTE
RECEIVER
UNIT
YB
AL
C5709
0.01
C5708
47/16
F CD FLDP UNIT
(AWZ8987)

NOTES

ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED
⊥ TL :CFTLA
⊤ M :CQMA

CH :CCSQCH
YB :CKSQYB
SL :CCSQSL
(OTHER:CKSQYF)

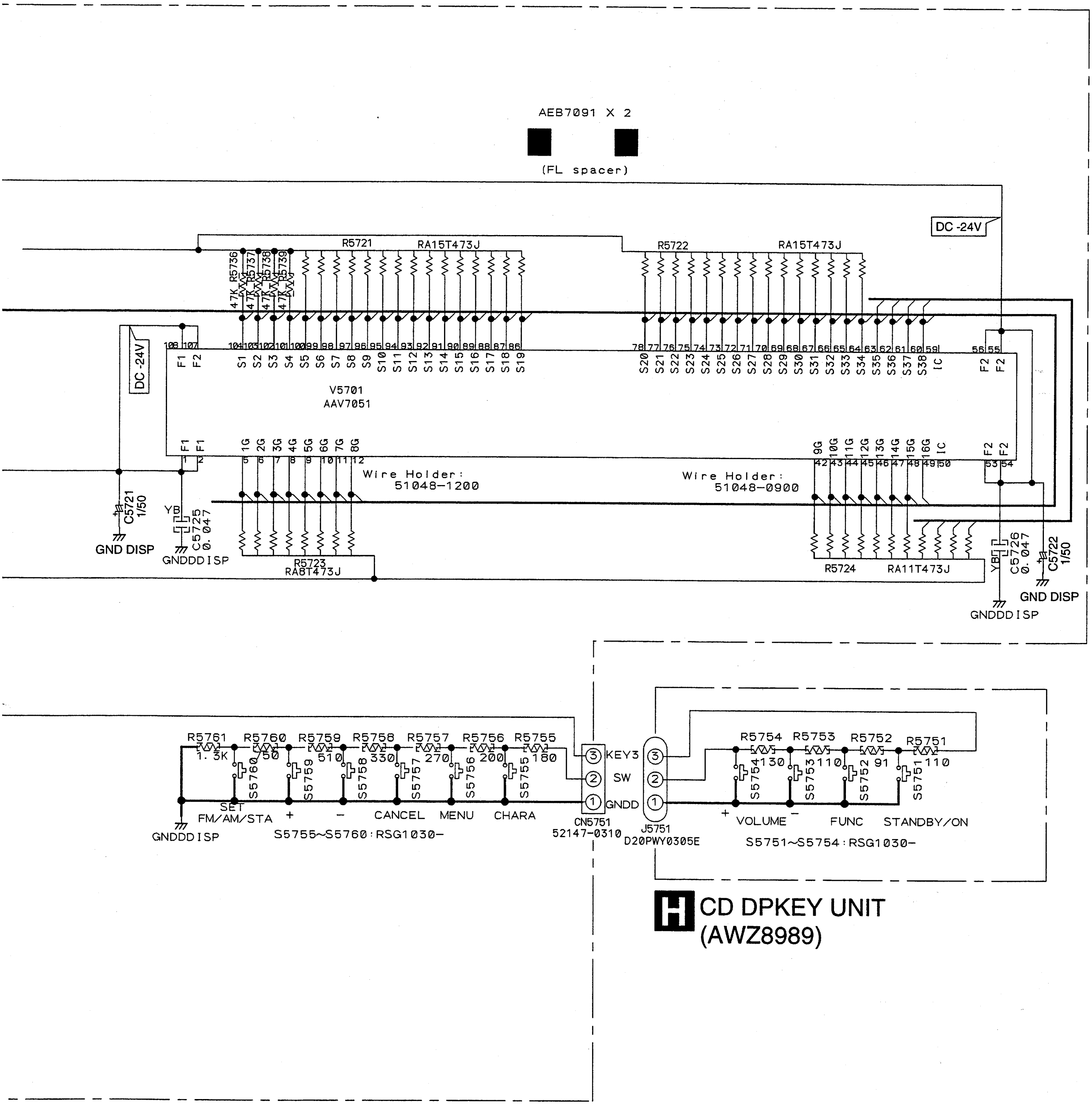
AL :CEAL
ZA :CEZA
EA :CEEA
(OTHER:CEAS**M##orCEAT***M##)

ALL RESISTORS ARE IN Ω
1/10W(CHIP)
1/4WPU

ALL INDUCTORS ARE IN μH
LAU

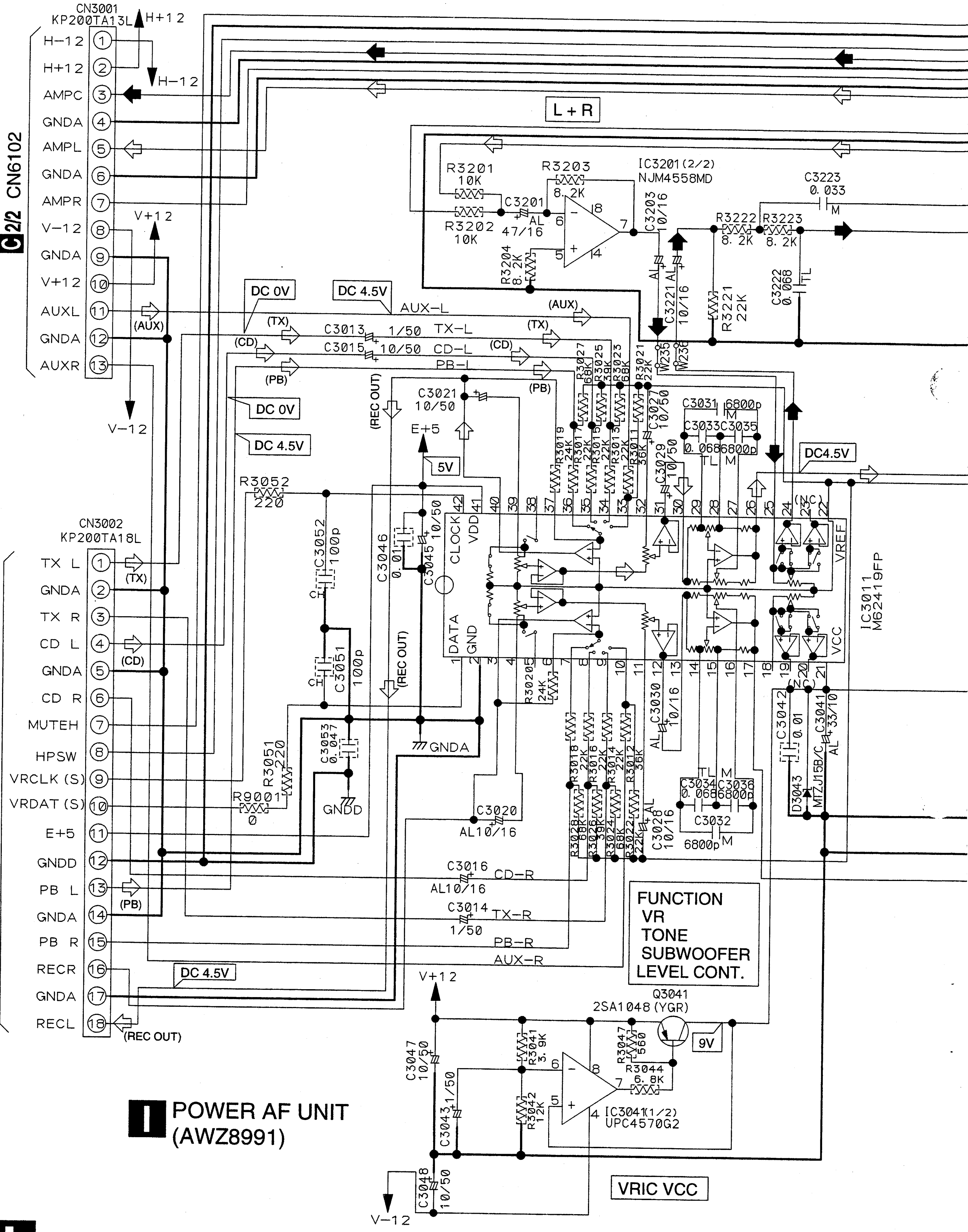
CD FLDP UNIT
S5755 : CHARACTER
S5756 : MENU
S5757 : CANCEL (■)
S5758 : – (⏮)
S5759 : + (⏭)
S5760 : SET FM/AM/STATION

CD DPKEY UNIT
S5751 : STANDBY/ON
S5752 : FUNCTION (PLAY)
S5753 : ∨] VOLUME
S5754 : ∧]


AEB7091 X 2
(FL spacer)
DC -24V
R5721 RA15T473J
R5722 RA15T473J
R5736 R5737 R5738 R5739
47K 47K 47K 47K
V5701
AAV7051
F1 F2 S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17 S18 S19
S20 S21 S22 S23 S24 S25 S26 S27 S28 S29 S30 S31 S32 S33 S34 S35 S36 S37 S38 IC F2 F2
F1 F1 1G 2G 3G 4G 5G 6G 7G 8G
9G 10G 11G 12G 13G 14G 15G 16G IC F2 F2
Wire Holder: 51048-1200
Wire Holder: 51048-0900
C5721 1/50
GND DISP
YB C5725 0.047
GNDDDISP
R5723 RA8T473J
R5724 RA11T473J
YB C5726 0.047
C5722 1/50
GND DISP
GNDDDISP
R5761 1.3K
R5760 750
R5759 510
R5758 330
R5757 270
R5756 200
R5755 180
S5760 S5759 S5758 S5757 S5756 S5755
SET FM/AM/STA + – CANCEL MENU CHARA
GNDDDISP
S5755~S5760:RSG1030-
③ KEY3
② SW
① GNDD
CN5751 52147-0310
J5751 D20PWY0305E
R5754 130
R5753 110
R5752 91
R5751 110
S5754 S5753 S5752 S5751
+ VOLUME – FUNC STANDBY/ON
S5751~S5754:RSG1030-

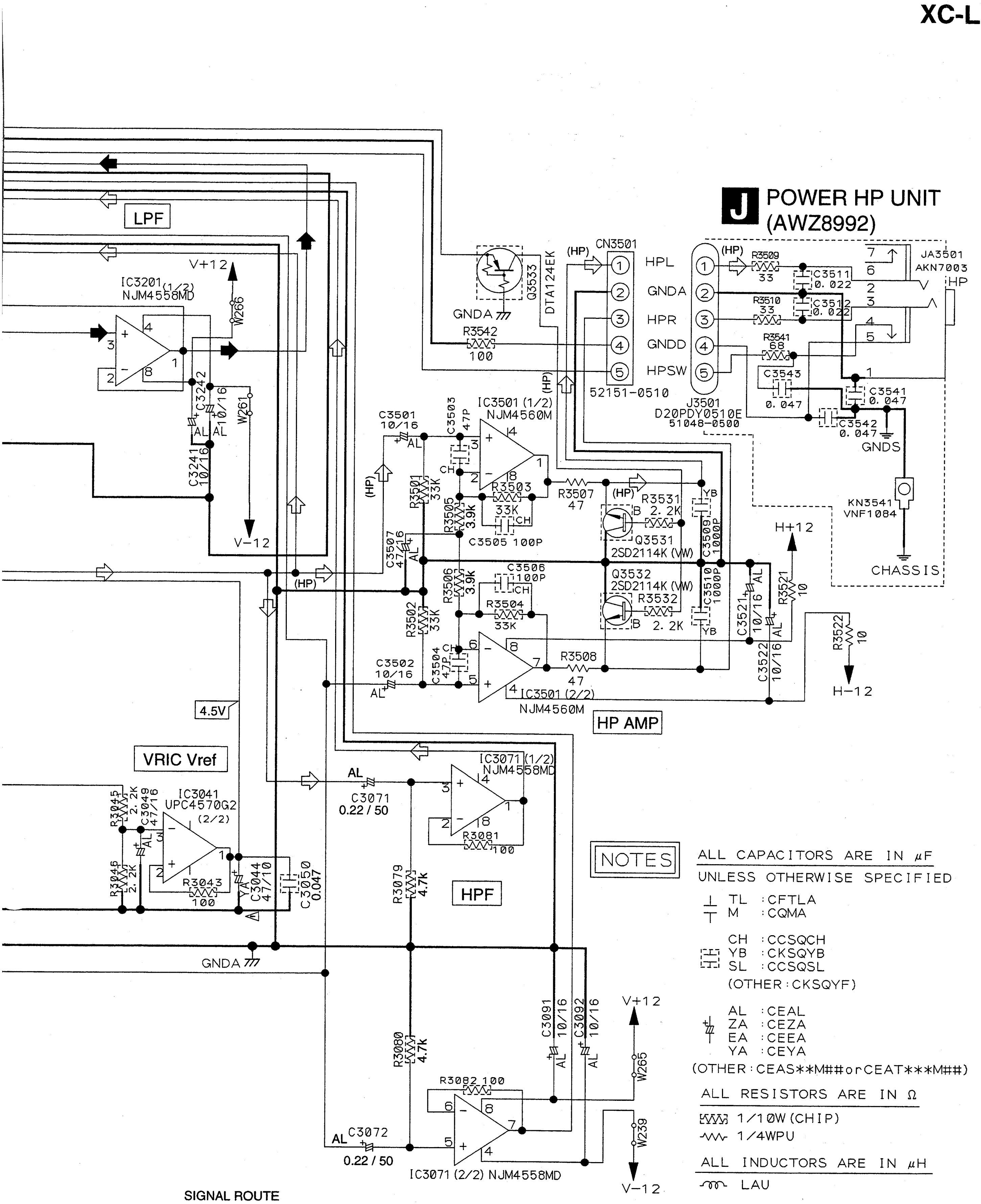
H CD DPKEY UNIT
(AWZ8989)

3.7 POWER AF AND POWER HP UNITS


CN3001
KP200TA13L
H+12
H−12
AMPC
GNDA
AMPL
AMPR
V−12
V+12
AUXL
AUXR
(AUX)
C 2/2 CN6102
L + R
R3201
10K
R3202
10K
R3203
8.2K
C3201
AL
47/16
IC3201(2/2)
NJM4558MD
C3203
10/16
C3223
0.033
M
R3222
8.2K
R3223
8.2K
R3204
8.2K
C3222
0.068
TL
C3221
AL
10/16
R3221
22K
DC 0V
DC 4.5V
AUX−L
(TX)
(CD)
(PB)
C3013
1/50
TX−L
C3015
10/50
CD−L
PB−L
(REC OUT)
C3021
10/50
E+5
5V
R3027
68K
R3025
39K
R3023
68K
R3021
22K
W235
W236
C3027
10/50
C3031
6800p
M
C3033
0.068
TL
C3035
6800p
M
R3019
24K
R3017
22K
R3015
22K
R3013
22K
R3011
36K
C3029
10/50
DC4.5V
R3052
220
C3052
100p
C3046
0.01
C3045
10/50
CLOCK
VDD
DATA
GND
VREF
VCC
IC3011
M62419FP
(NC)
C3051
100p
CN3002
KP200TA18L
TX L
TX R
CD L
CD R
MUTEH
HPSW
VRCLK (S)
VRDAT (S)
E+5
GNDD
PB L
PB R
RECR
RECL
C 2/2 CN6103
C3053
0.047
R3051
220
R9001
0
GNDA
GNDD
R3205
24K
C3020
AL10/16
R3018
R3016
R3014
R3012
36K
R3028
68K
R3026
39K
R3024
68K
R3022
22K
C3030
AL
10/16
C3028
AL
10/16
C3034
0.068
C3036
6800p
C3032
6800p
M
C3042
0.01
C3041
AL
33/10
D3043
MTZJ15B/C
C3016
AL10/16
CD−R
C3014
1/50
TX−R
PB−R
AUX−R
FUNCTION
VR
TONE
SUBWOOFER
LEVEL CONT.
V+12
Q3041
2SA1048(YGR)
9V
C3047
10/50
R3041
3.9K
R3047
560
R3044
6.8K
R3042
12K
IC3041(1/2)
UPC4570G2
C3043
1/50
C3048
10/50
V−12
VRIC VCC

I POWER AF UNIT
(AWZ8991)

J POWER HP UNIT (AWZ8992)


LPF
V+12
IC3201 (1/2)
NJM4558MD
W266
C3242
10/16
W261
C3241
10/16
V-12
Q3533
DTA124EK
GNDA
R3542
100
CN3501
(HP)
HPL
GNDA
HPR
GNDD
HPSW
52151-0510
J3501
D20PDY0510E
51048-0500
R3509
33
C3511
0.022
R3510
33
C3512
0.022
R3541
68
C3543
0.047
C3541
0.047
C3542
0.047
GNDS
JA3501
AKN7003
HP
KN3541
VNF1084
CHASSIS
IC3501 (1/2)
NJM4560M
C3501
10/16
C3503
47P
R3501
33K
R3503
33K
R3505
3.9K
C3505 100P
R3507
47
R3531
2.2K
Q3531
2SD2114K (VW)
C3509
1000P
C3507
47/16
R3506
3.9K
C3506
100P
R3504
33K
R3502
33K
Q3532
2SD2114K (VW)
R3532
2.2K
C3510
1000P
H+12
C3521
10/16
R3521
10
R3522
10
C3522
10/16
H-12
C3502
10/16
C3504
47P
R3508
47
IC3501 (2/2)
NJM4560M
HP AMP
4.5V
VRIC Vref
IC3041
UPC4570G2
(2/2)
R3045
2.2K
C3049
47/16
R3046
2.2K
R3043
100
C3044
47/10
C3050
0.047
GNDA
IC3071 (1/2)
NJM4558MD
C3071
0.22 / 50
R3081
100
R3079
4.7K
HPF
R3080
4.7K
C3091
10/16
C3092
10/16
V+12
W265
R3082 100
W239
C3072
0.22 / 50
IC3071 (2/2) NJM4558MD
V-12
AL
CH
YB

NOTES

ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED
TL :CFTLA
M :CQMA

CH :CCSQCH
YB :CKSQYB
SL :CCSQSL
(OTHER:CKSQYF)

AL :CEAL
ZA :CEZA
EA :CEEA
YA :CEYA
(OTHER:CEAS**M##orCEAT***M##)

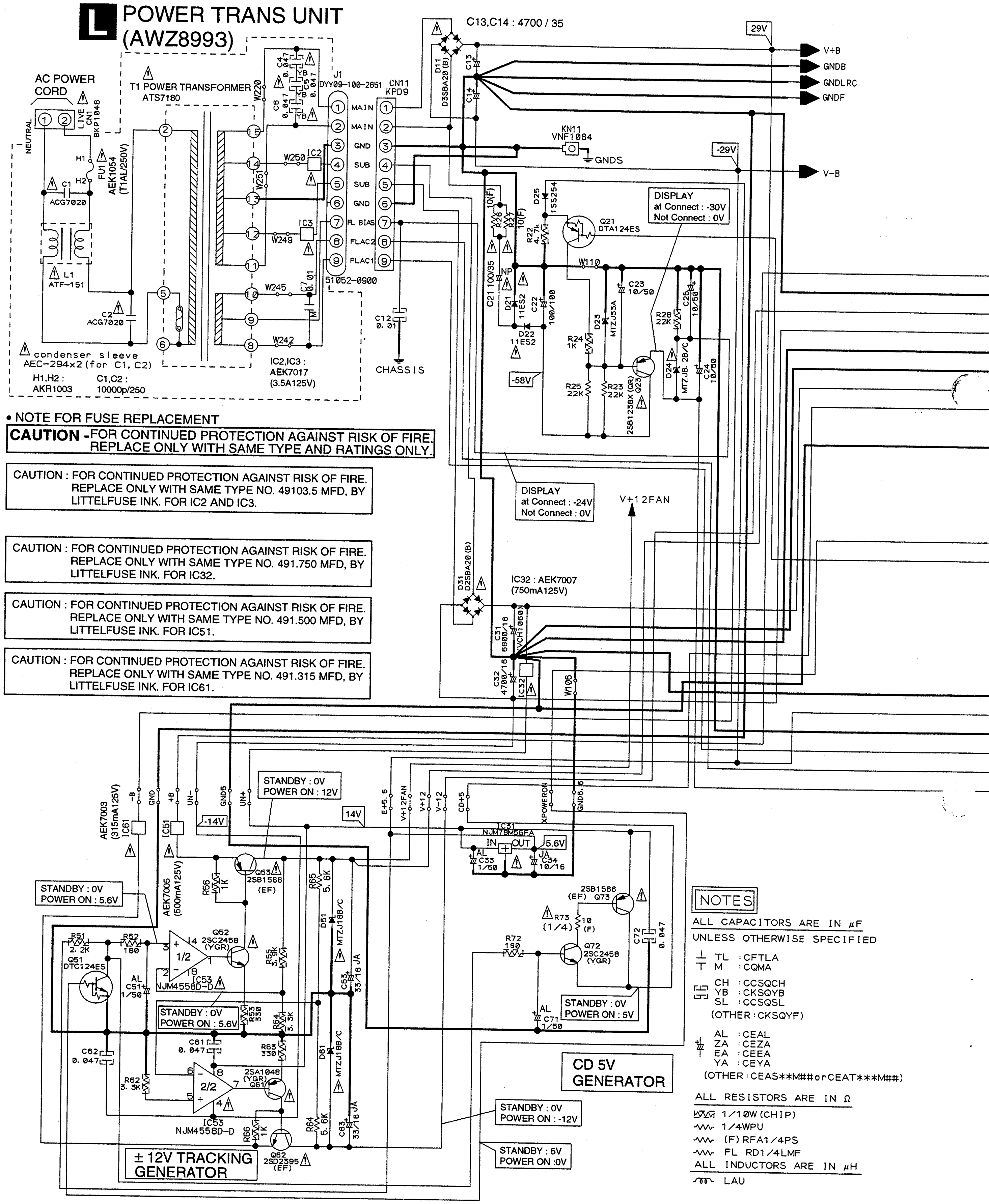
ALL RESISTORS ARE IN Ω
1/10W (CHIP)
1/4WPU

ALL INDUCTORS ARE IN μH
LAU

SIGNAL ROUTE

⇨ : LCH AUDIO SIGNAL ROUTE
(AUX) ⇨ : AUX AUDIO SIGNAL ROUTE
(PB) ⇨ : DECK PB SIGNAL ROUTE
(REC OUT) ⇨ : DECK REC SIGNAL ROUTE
(TX) ⇨ : TUNER AUDIO SIGNAL ROUTE
(CD) ⇨ : CD AUDIO SIGNAL ROUTE
(HP) ⇨ : H.P AUDIO SIGNAL ROUTE
➡ : SUBWOOFER OUTPUT

3.8 POWER AMP, POWER TRANS AND POWER SPTB UNITS


L POWER TRANS UNIT (AWZ8993)
AC POWER CORD
NEUTRAL
LIVE
CN1 BKP1046
T1 POWER TRANSFORMER ATS7180
H1
H2
FU1 AEK1054 (T1AL/250V)
C1 ACG7020
L1 ATF-151
C2 ACG7020
condenser sleeve AEC-294x2 (for C1, C2)
H1,H2 : AKR1003
C1,C2 : 10000p/250
W220
C6 0.047
C47 0.047 YB
C5 0.047 YB
J1 DYY09-100-2651
CN11 KPD9
MAIN
MAIN
GND
SUB
SUB
GND
FL BIAS
FLAC2
FLAC1
W250
IC2
W251
IC3
W249
W245
C7 0.01 M
W242
51052-0900
IC2,IC3 : AEK7017 (3.5A125V)
C12 0.01
CHASSIS
C13,C14 : 4700 / 35
D11 D3SBA20 (B)
C13
C14
29V
V+B
GNDB
GNDLRC
GNDF
KN11 VNF1084
GNDS
-29V
V-B
D25 1SS254
R26 10(F)
R22 4.7k 10(F)
Q21 DTA124ES
DISPLAY at Connect : -30V Not Connect : 0V
W110
C21 100/35 NP
D21 11ES2
C22 100/100
D22 11ES2
C23 10/50
D23 MTZJ33A
R24 1K
R28 22K
C25 10/50
D24 MTZJ6.2B/C
C24 10/50
-58V
R25 22K
R23 22K
Q23 2SB1238X (QR)
DISPLAY at Connect : -24V Not Connect : 0V
V+12FAN
D31 D2SBA20 (B)
IC32 : AEK7007 (750mA125V)
C31 6800/16
VCH1080
C32 4700/16
IC32
W106
AEK7003 (315mA125V) IC61
-B
GND
+B
IC51
UN-
GND5
UN+
STANDBY : 0V POWER ON : 12V
-14V
14V
E+5.6
V+12FAN
V+12
V-12
CD+5
XPOWERON
GND5.6
IC31 NJM78M56FA
IN OUT
5.6V
AL C33 1/50
JA C34 10/16
AEK7005 (500mA125V)
R56 1K
Q53 2SB1566 (EF)
R65 5.6K
STANDBY : 0V POWER ON : 5.6V
R51 2.2K
R52 180
Q52 2SC2458 (YGR)
1/2
IC53 NJM4558D-D
Q51 DTC124ES
AL C51 1/50
R55 3.9K
D51 MTZJ18B/C
C53 33/16 JA
STANDBY : 0V POWER ON : 5.6V
R53 330
R54 3.3K
C61 0.047
R63 330
C62 0.047
R62 3.3K
2/2
IC53 NJM4558D-D
2SA1048 (YGR) Q61
D61 MTZJ18B/C
R66 1K
Q62 2SD2395 (EF)
R64 5.6K
C63 33/16 JA
± 12V TRACKING GENERATOR
2SB1566 (EF) Q73
R73 10 (1/4) (F)
R72 180
Q72 2SC2458 (YGR)
C72 0.047
AL C71 1/50
STANDBY : 0V POWER ON : 5V
CD 5V GENERATOR
STANDBY : 0V POWER ON : -12V
STANDBY : 5V POWER ON :0V

- NOTE FOR FUSE REPLACEMENT

CAUTION -FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 49103.5 MFD, BY LITTELFUSE INK. FOR IC2 AND IC3.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.750 MFD, BY LITTELFUSE INK. FOR IC32.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.500 MFD, BY LITTELFUSE INK. FOR IC51.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.315 MFD, BY LITTELFUSE INK. FOR IC61.

NOTES

ALL CAPACITORS ARE IN μF UNLESS OTHERWISE SPECIFIED

TL :CFTLA
M :CQMA
CH :CCSQCH
YB :CKSQYB
SL :CCSQSL
(OTHER : CKSQYF)
AL :CEAL
ZA :CEZA
EA :CEEA
YA :CEYA
(OTHER : CEAS**M##orCEAT***M##)

ALL RESISTORS ARE IN Ω

1/10W (CHIP)
1/4WPU
(F) RFA1/4PS
FL RD1/4LMF

ALL INDUCTORS ARE IN μH

LAU

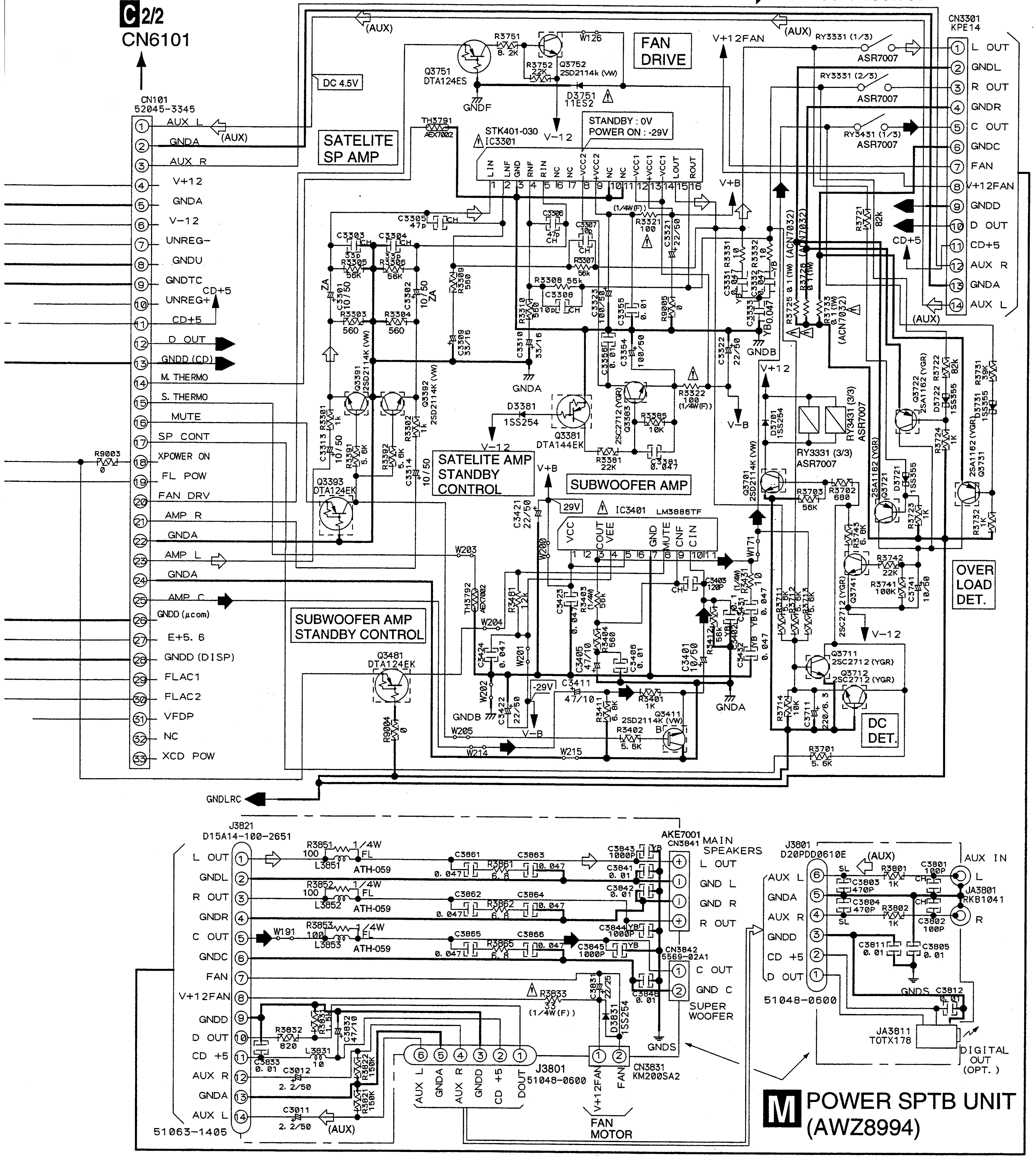
K POWER AMP UNIT(AWZ8990)

SIGNAL ROUTE

⇨ : LCH AUDIO SIGNAL ROUTE

(AUX) ⇨ : AUX AUDIO SIGNAL ROUTE

➡ : SUBWOOFER OUTPUT

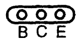
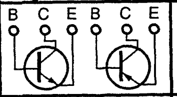
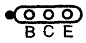
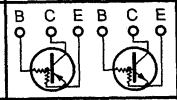
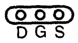
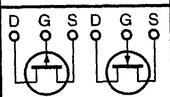
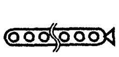
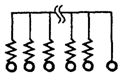
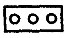
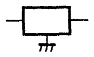

C 2/2
CN6101
CN101
52045-3345
AUX L
GNDA
AUX R
V+12
GNDA
V-12
UNREG-
GNDU
GNDTC
UNREG+
CD+5
D OUT
GNDD (CD)
M. THERMO
S. THERMO
MUTE
SP CONT
XPOWER ON
FL POW
FAN DRV
AMP R
GNDA
AMP L
GNDA
AMP C
GNDD (μcom)
E+5. 6
GNDD (DISP)
FLAC1
FLAC2
VFDP
NC
XCD POW
R9003
DC 4.5V
TH3791
AEX7002
SATELITE SP AMP
STK401-030
IC3301
Q3751
DTA124ES
GNDF
R3751 8.2K
R3752 22K
Q3752 2SD2114K (VW)
W126
D3751 11ES2
V-12
FAN DRIVE
V+12FAN
STANDBY : 0V
POWER ON : -29V
RY3331 (1/3)
ASR7007
RY3331 (2/3)
RY3431 (1/3)
CN3301
KPE14
L OUT
GNDL
R OUT
GNDR
C OUT
GNDC
FAN
V+12FAN
GNDD
D OUT
CD+5
AUX R
GNDA
AUX L
SATELITE AMP STANDBY CONTROL
Q3381
DTA144EK
D3381
1SS254
Q3391
Q3392
2SD2114K (VW)
Q3393
DTA124EK
Q3383
2SC2712 (YGR)
SUBWOOFER AMP
IC3401
LM3886TF
29V
-29V
V+B
V-B
GNDA
GNDB
SUBWOOFER AMP STANDBY CONTROL
Q3481
DTA124EK
TH3792
AEX7002
Q3411
2SD2114K (VW)
Q3701
Q3711
2SC2712 (YGR)
Q3712
2SC2712 (YGR)
Q3721
2SA1162 (YGR)
Q3722
2SA1162 (YGR)
Q3731
2SA1162 (YGR)
Q3741
2SC2712 (YGR)
D3701
1SS254
D3721
D3722
D3731
1SS355
RY3331 (3/3)
RY3431 (3/3)
ASR7007
OVER LOAD DET.
DC DET.
GNDLRC
J3821
D15A14-100-2651
L OUT
GNDL
R OUT
GNDR
C OUT
GNDC
FAN
V+12FAN
GNDD
D OUT
CD +5
AUX R
GNDA
AUX L
51063-1405
R3851 100 1/4W FL
L3851 ATH-059
R3852 100 1/4W FL
L3852 ATH-059
R3853 100 1/4W FL
L3853 ATH-059
W191
AKE7001
CN3841
MAIN SPEAKERS
L OUT
GND L
GND R
R OUT
CN3842
5569-02A1
C OUT
GND C
SUPER WOOFER
GNDS
R3833
(1/4W(F))
D3831
1SS254
J3801
51048-0600
AUX L
GNDA
AUX R
GNDD
CD +5
DOUT
CN3831
KM200SA2
V+12FAN
FAN
FAN MOTOR
R3832 820
L3831 10
C3833 0.01
C3012 2.2/50
C3011 2.2/50
R3822 150K
R3821 150K
(AUX)
J3801
D20PDD0610E
AUX L
GNDA
AUX R
GNDD
CD +5
D OUT
51048-0600
AUX IN
L
R
JA3801
RKB1041
R3801 1K
R3802 1K
JA3811
TOTX178
DIGITAL OUT (OPT.)
GNDS

M POWER SPTB UNIT (AWZ8994)

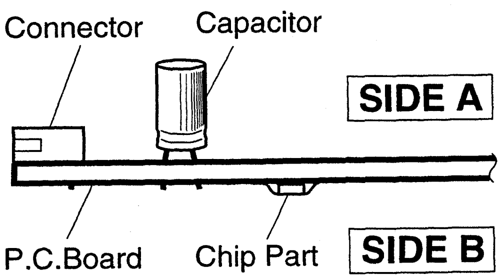
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

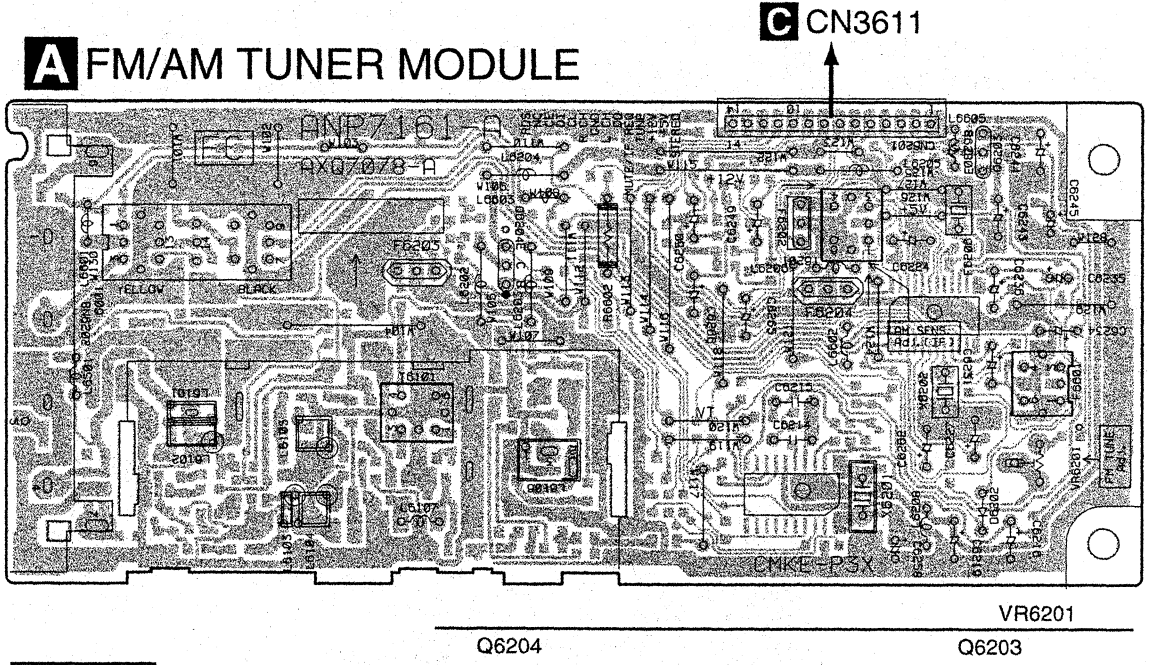
Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



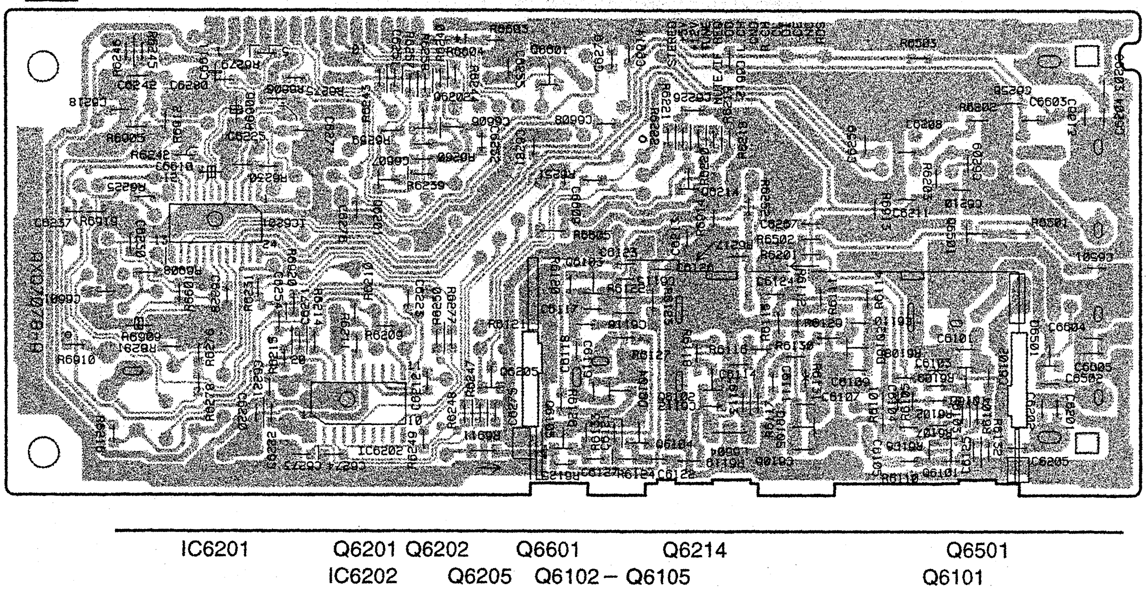
4.1 FM/AM TUNER MODULE

A FM/AM TUNER MODULE


C CN3611
ANP7161-A
AXQ7078-A
F6205
F6204
YELLOW
BLACK
AM SENS Adj.(IF)
FM TUNE Adj.
CMKE-P3X
VR6201
Q6204
Q6203

SIDE A

A FM/AM TUNER MODULE

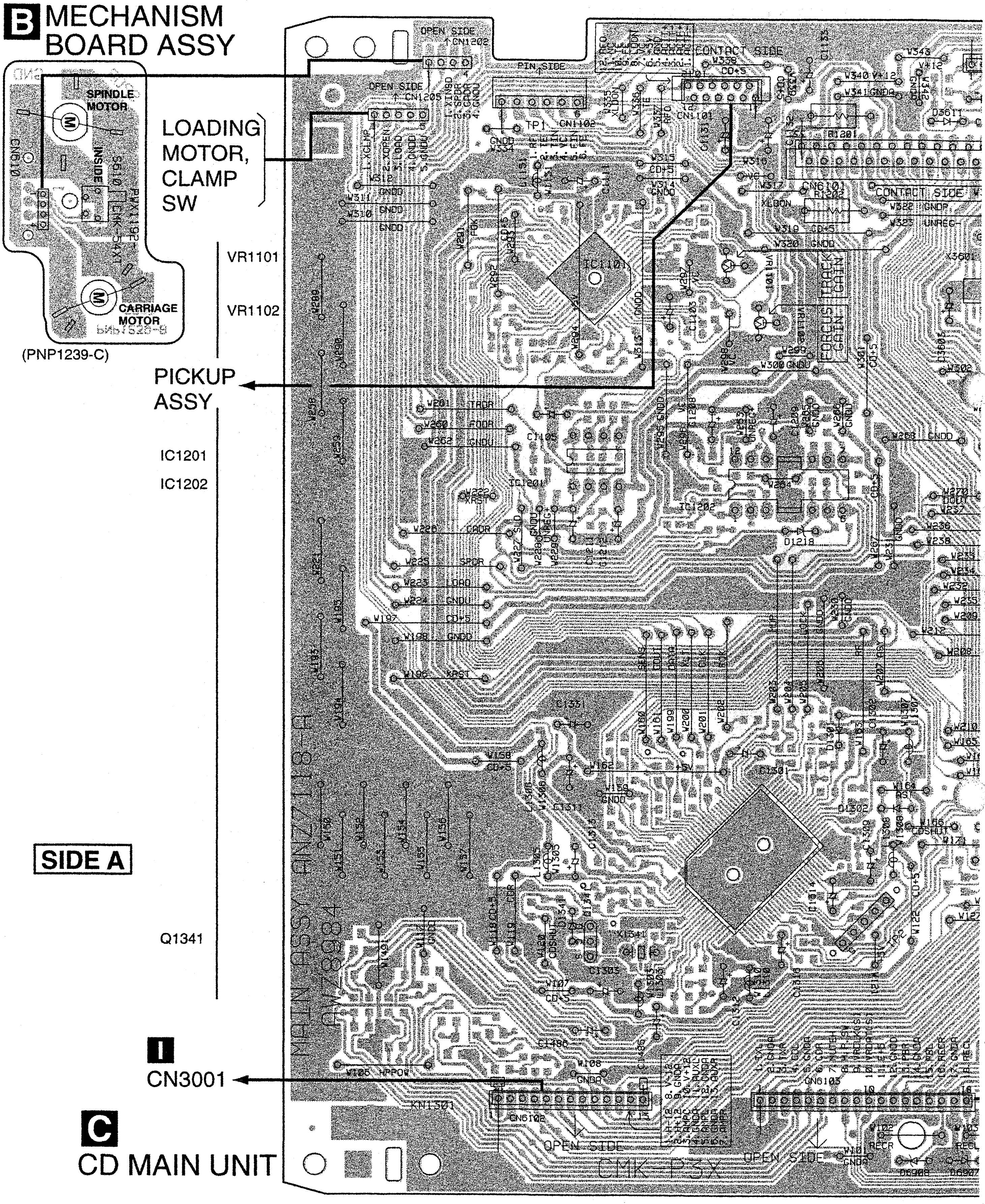

AXQ7078-A
IC6201
Q6201 Q6202
Q6601
Q6214
Q6501
IC6202
Q6205
Q6102 – Q6105
Q6101

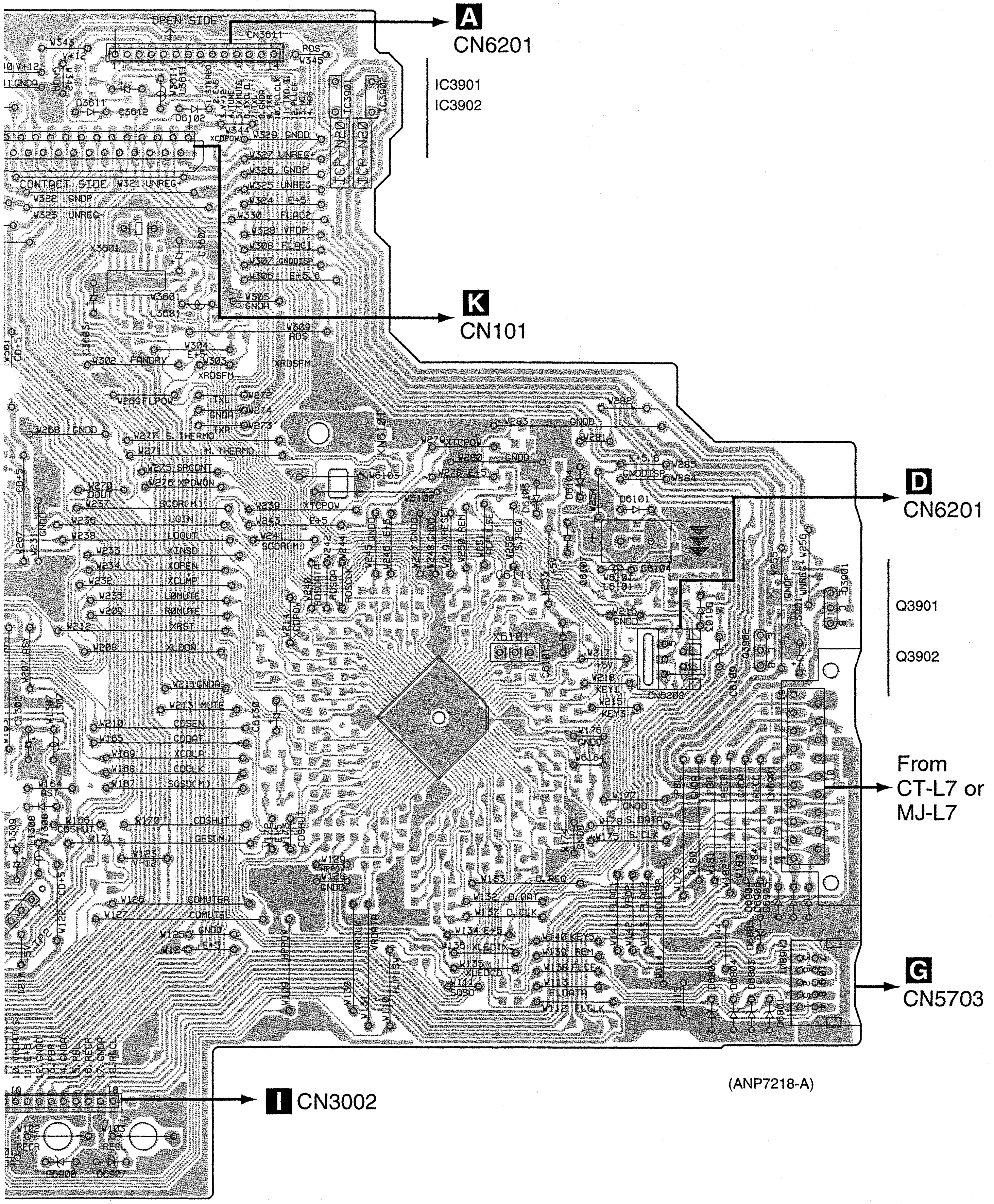
SIDE B

(ANP7161-A)

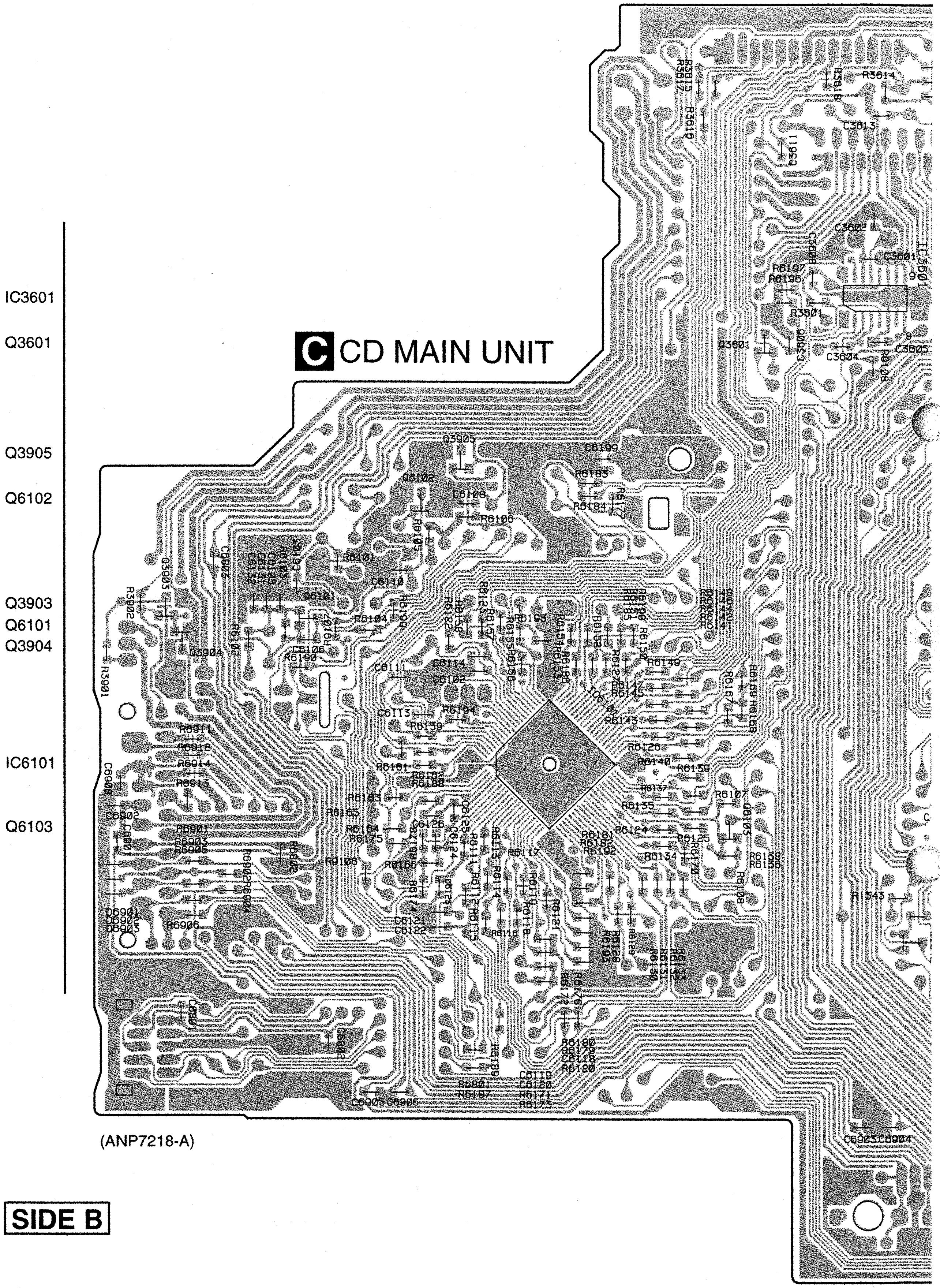
4.2 MECHANISM BOARD ASSY AND CD MAIN UNIT

B MECHANISM BOARD ASSY


SPINDLE MOTOR
INSIDE
S610
CN610
PWX1192
CMK-54XT
CARRIAGE MOTOR
(PNP1239-C)
LOADING MOTOR, CLAMP SW
VR1101
VR1102
PICKUP ASSY
IC1201
IC1202
SIDE A
Q1341
I CN3001
C CD MAIN UNIT
OPEN SIDE
CN1202
CN1205
1. XCLMP
2. XOPEN
3. LOAD
4. CDDR
5. GNDD
1. XINSD
2. SPDR
3. CADR
4. GNDD
PIN SIDE
CN1102
CONTACT SIDE
CN1101
CN6101
IC1101
FOCUS GAIN
TRACK GAIN
CN6102
CN6103
KN1501
CMK-P5X
MAIN ASSY ANZ7118-A
ANW-7884

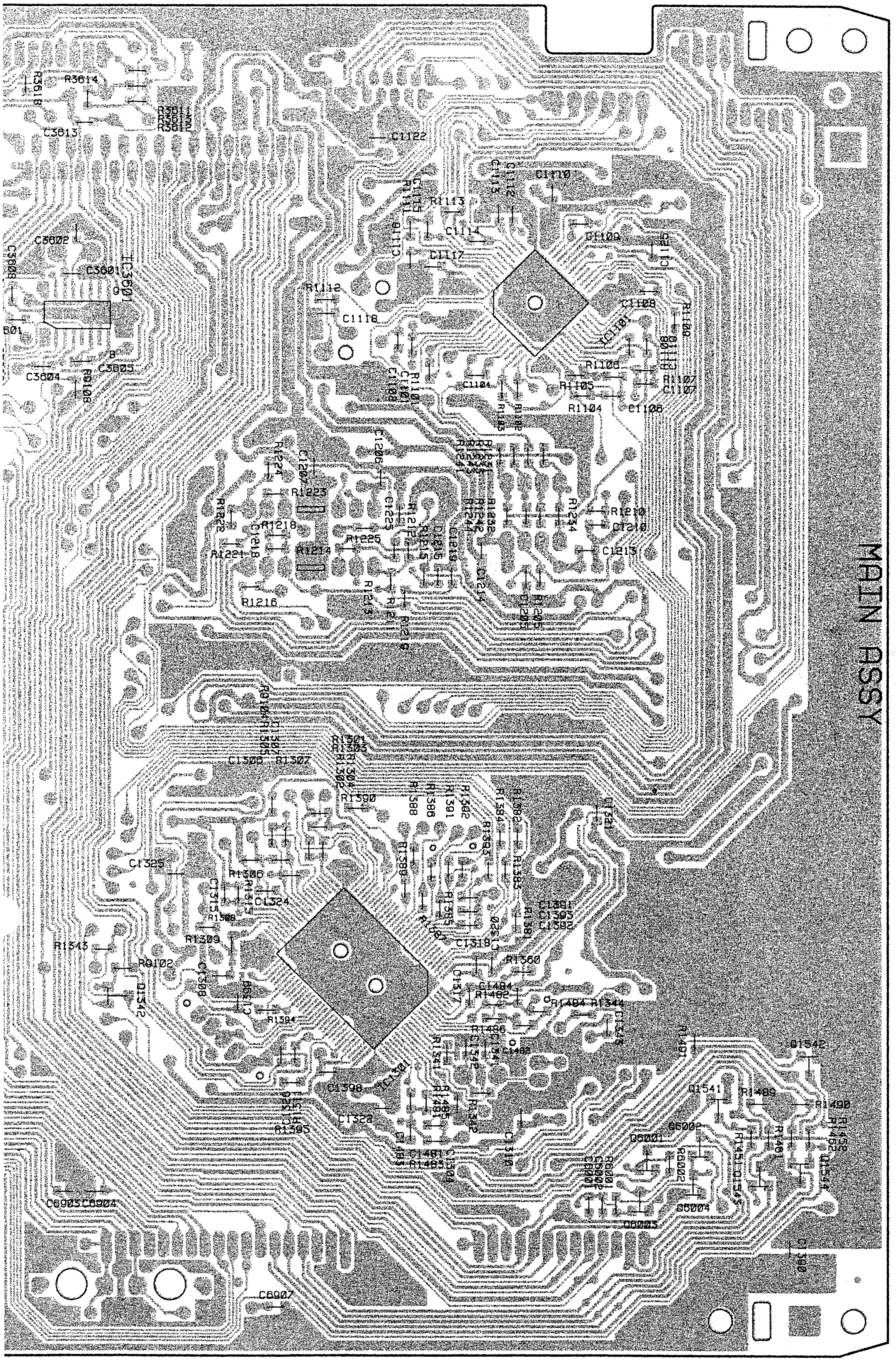

A CN6201
IC3901
IC3902
K CN101
D CN6201
Q3901
Q3902
From CT-L7 or MJ-L7
G CN5703
I CN3002
(ANP7218-A)
OPEN SIDE
CONTACT SIDE
CN3611
CN6202
X3601
X6101

C CD MAIN UNIT


IC3601
Q3601
Q3905
Q6102
Q3903
Q6101
Q3904
IC6101
Q6103
R3614
C3613
C3611
C3602
C3601
R6197
R6196
R3601
Q3601
C3604
C3605
C6199
R6183
R6184
C6108
R6186
R6105
R6101
C6110
Q6101
R6104
R3902
R3901
Q3904
C6106
R6190
C6111
C6114
C6102
C6113
R6194
R6159
R6149
R6143
R6126
R6140
R6150
R6107
R6135
R6124
R6125
R6134
R6158
R6156
R1343
R6117
R6901
R6903
R6906
C6902
C6908
R9100
R6165
R6175
C6126
C6121
C6122
C6119
C6120
R6171
R6173
R6197
C6905
C6906
C6903
C6904

(ANP7218-A)

SIDE B

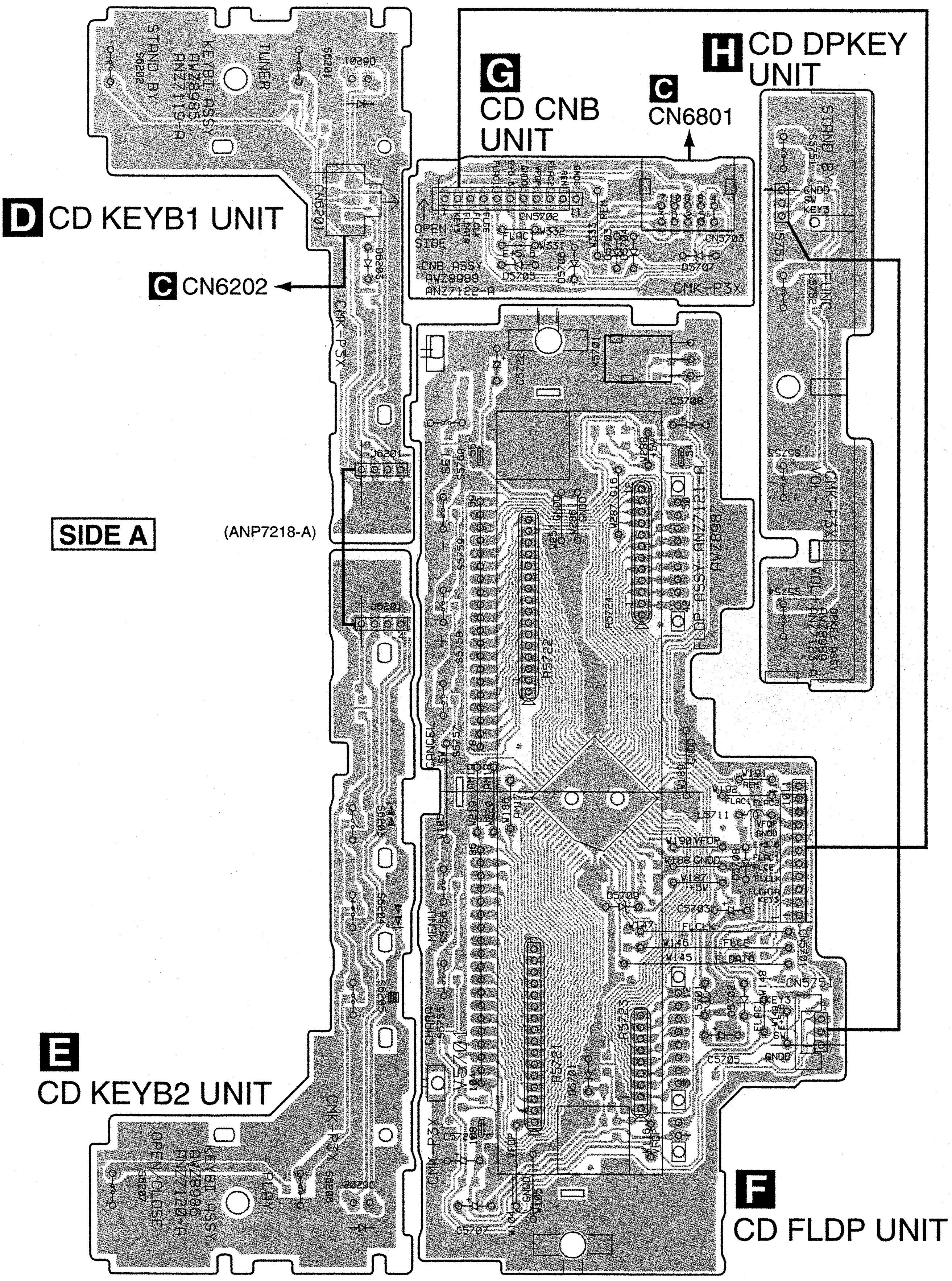

MAIN ASSY
IC1101
IC3601
IC1301
Q1342
Q1541
Q1542
Q1544
Q6001
Q6002
Q6003
Q6004
Q1109
R3614
R3618
R3611
R3615
R3612
C3613
C3602
C3601
C3608
C3604
C3605
C1122
C1110
C1113
C1112
C1115
R1111
R1113
C1114
C1116
C1117
R1112
C1118
C1108
R1100
R1106
R1105
R1104
R1107
C1107
C1106
C1104
C1100
R1101
R1224
R1223
R1222
R1218
R1221
C1218
R1214
R1225
C1225
R1216
R1234
R1210
C1210
C1213
C1206
C1207
R1301
R1303
R1304
R1302
R1307
C1306
R1390
R1388
R1386
R1391
R1392
R1384
R1389
C1325
R1306
C1315
R1313
C1324
R1309
R1308
R1343
R9102
C1308
R1394
C1398
C1301
C1322
R1395
R1360
C1318
C1391
C1393
C1392
R1381
C1404
R1402
R1404
R1344
C1345
R1406
C1402
R1341
R1405
R1401
R1342
C1310
C1401
R1403
R1491
R1489
R1490
R1486
R1492
R6001
R6002
C6001
C6002
C6904
C6905
C6907
C1300

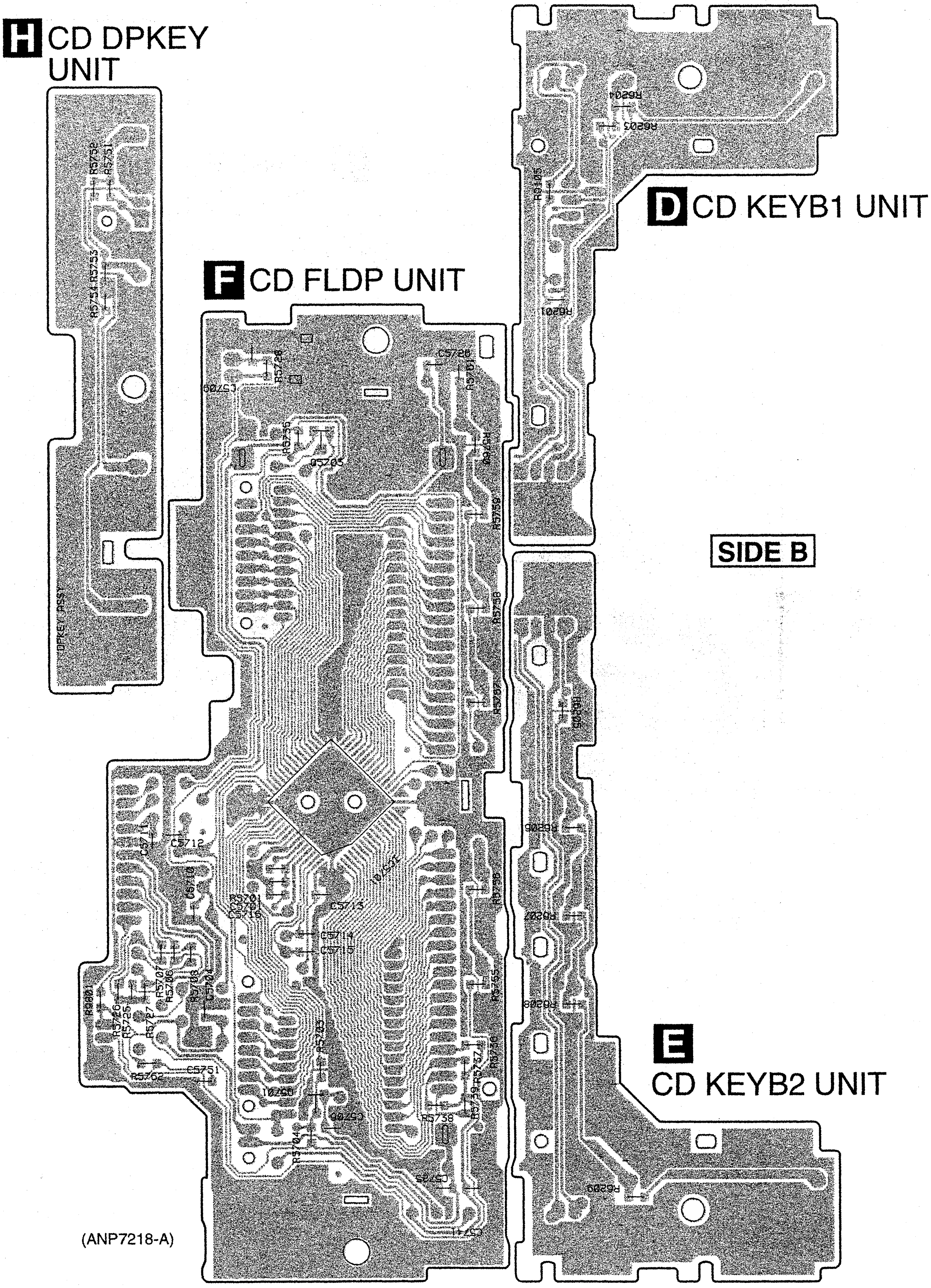
IC1101
IC3601

IC1301
Q1342

Q1541
|
Q1544
Q6001
|
Q6004

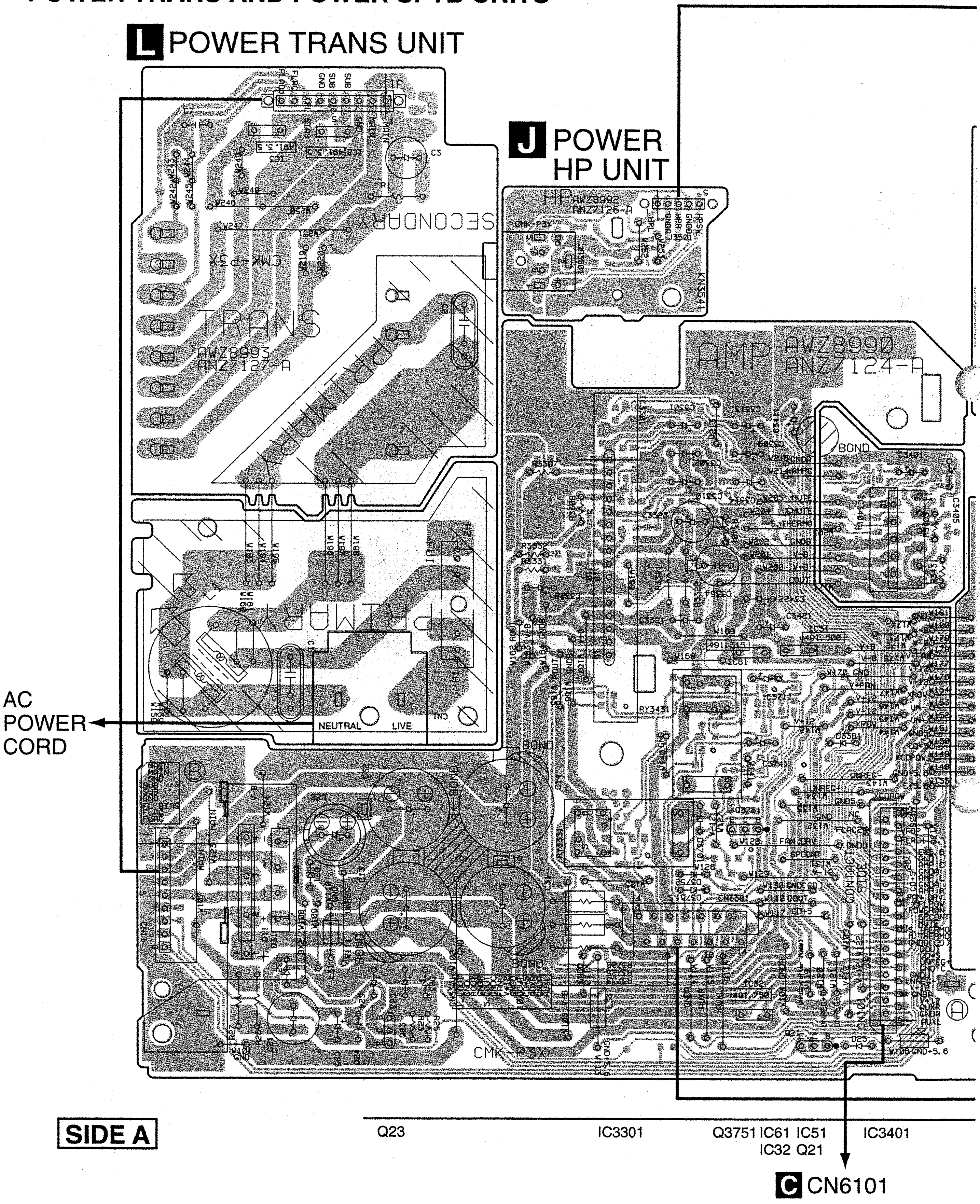
4.3 CD KEYB1, CD KEYB2, CD FLDP, CD CNB AND CD DPKEY UNITS

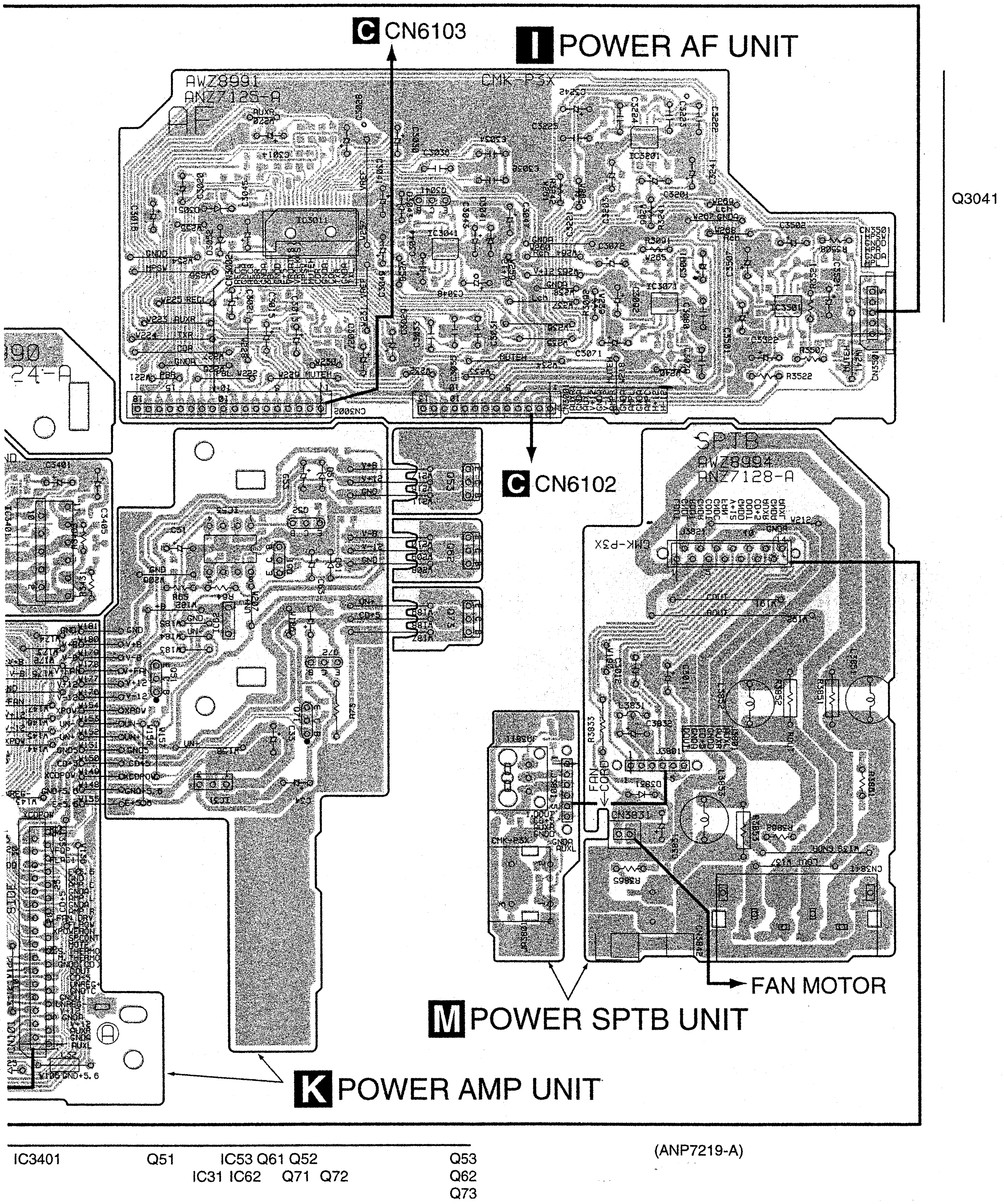

H CD DPKEY UNIT
G CD CNB UNIT
C CN6801
D CD KEYB1 UNIT
C CN6202
SIDE A
(ANP7218-A)
E CD KEYB2 UNIT
F CD FLDP UNIT
KEYB1 ASSY AWZ8985 ANZ7119-A
STAND BY
TUNER
S6201
S6202
CN6201
J6201
CMK-P3X
CNB ASSY AWZ8980 ANZ7122-A
OPEN SIDE
CN5702
CN5703
D5705
D5707
FLDP ASSY AWZ8987 ANZ7121-A
X5701
C5722
C5708
SET
S5760
S5759
S5758
S5757
CANCEL
MENU
S5756
CHARA
S5755
V5701
R5722
R5724
R5721
R5723
D5701
D5700
C5703
C5705
C5707
L5711
CN5751
DPKEY ASSY AWZ8989 ANZ7123-A
STAND BY
S5751
FUNC
S5752
S5753
VOL-
S5754
VOL+
KEYB1 ASSY AWZ8986 ANZ7120-A
OPEN/CLOSE
PLAY
S6207
S6208
S6203
S6204
S6205


H CD DPKEY UNIT
D CD KEYB1 UNIT
F CD FLDP UNIT
E CD KEYB2 UNIT
SIDE B
R5752
R5751
R5753
R5754
DPKEY ASSY
R6204
R6205
R9105
R6201
C5728
R5728
C5709
C5720
R5761
R5735
Q5705
R5760
R5759
R5758
R5757
IC5701
C5711
C5712
C5710
R5701
C5701
C5716
C5713
C5714
C5715
R5756
R5755
R9801
R5726
R5725
R5727
R5707
R5706
R5708
C5704
R5702
C5751
R5703
Q5701
Q5702
R5704
R5738
R5739
R5737
R5736
C5725
C5741
R6206
R6207
R6208
R6209
R9106

(ANP7218-A)

4.4 POWER AF, POWER HP, POWER AMP, POWER TRANS AND POWER SPTB UNITS


L POWER TRANS UNIT
J POWER HP UNIT
TRANS
AWZ8993
ANZ7127-A
HP AWZ8992
ANZ7126-A
AMP AWZ8990
ANZ7124-A
SECONDARY
PRIMARY
CMK-P3X
AC POWER CORD
NEUTRAL
LIVE
BOND
SIDE A
Q23
IC3301
Q3751 IC61 IC51
IC32 Q21
IC3401
C CN6101

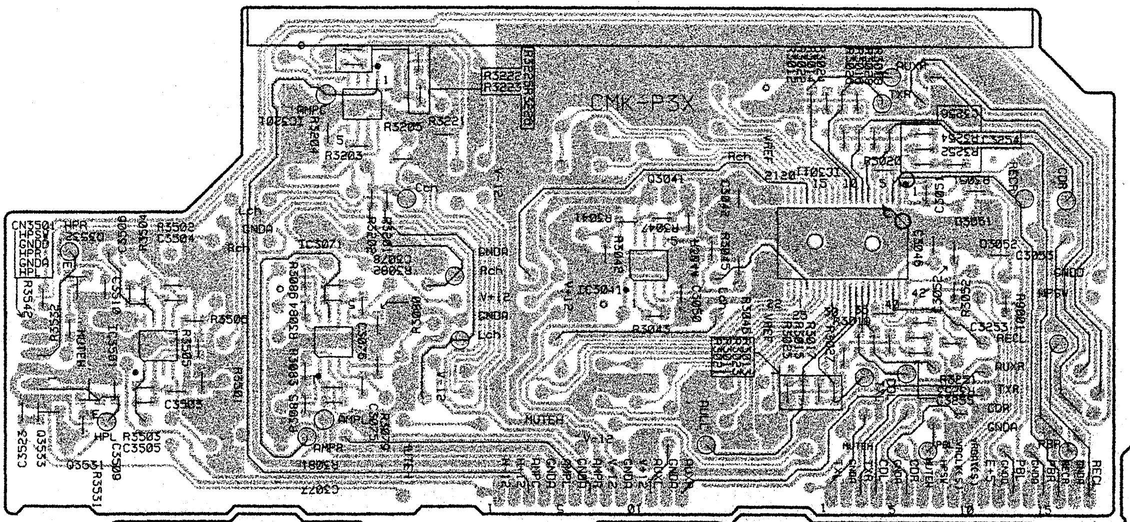

C CN6103
I POWER AF UNIT
C CN6102
M POWER SPTB UNIT
K POWER AMP UNIT
FAN MOTOR
Q3041
AWZ8991
ANZ7125-A
CMK-P3X
SPTB
AWZ8994
ANZ7128-A
IC3011
IC3041
IC3071
IC3501
IC3201
CN3002
CN3501
CN3831
J3821
J3801
IC3401
Q51
IC53 Q61 Q52
IC31 IC62
Q71 Q72
Q53
Q62
Q73
(ANP7219-A)
101

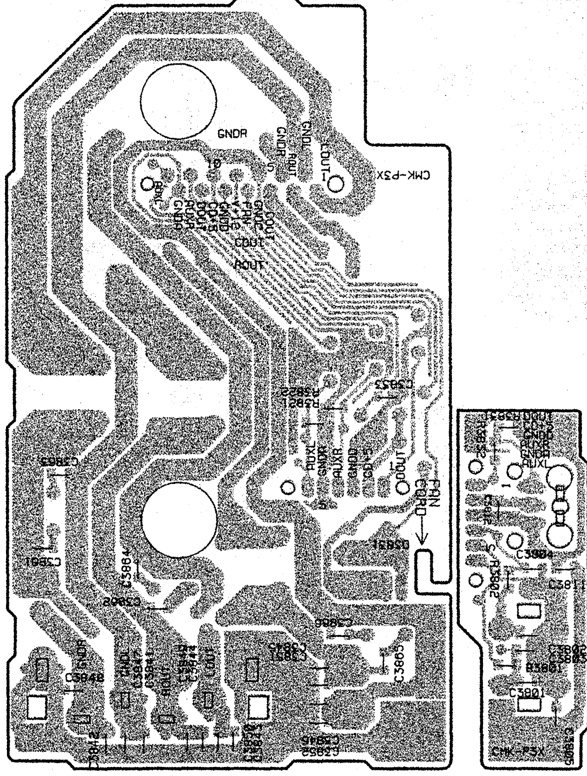
I POWER AF UNIT

IC3201

IC3011
IC3041
Q3532

IC3071
IC3501
Q3531
Q3533

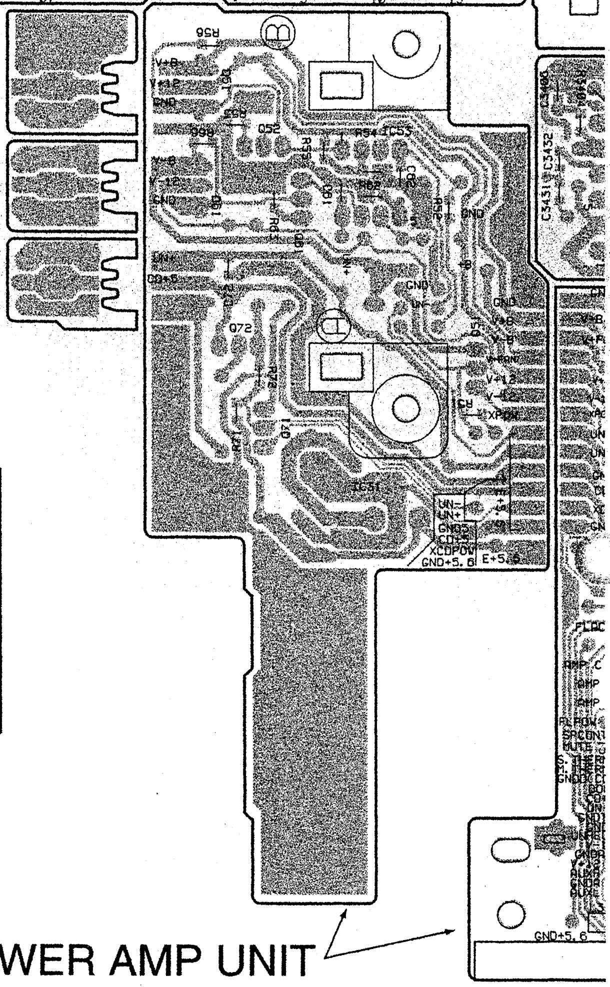

CMK-P3X
CN3501


CMK-P3X
FAN CORD

M POWER SPTB UNIT

(ANP7219-A)

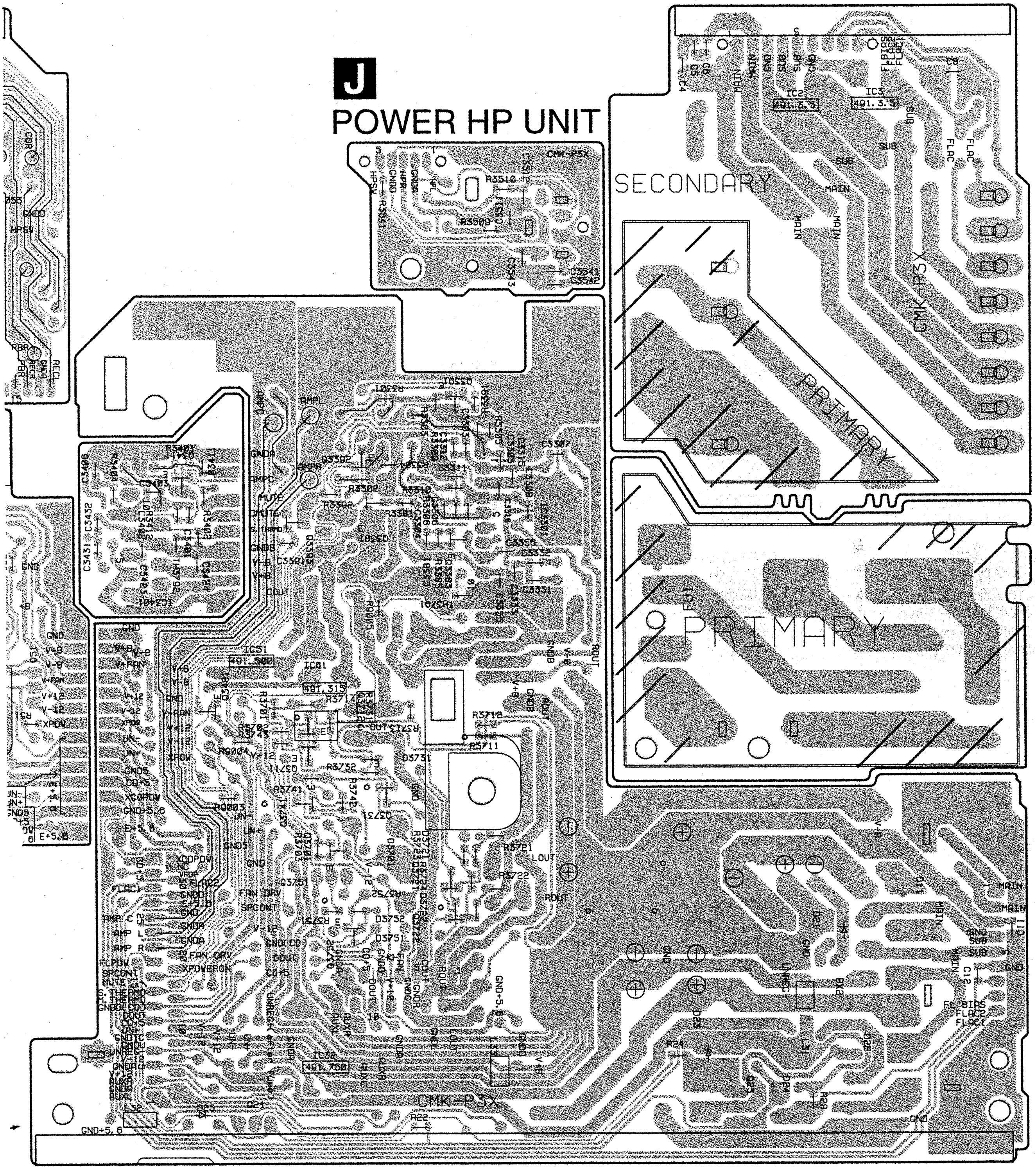
SIDE B


XCDPOW
GND+5.6
E+5.6

K POWER AMP UNIT

L POWER TRANS UNIT

J POWER HP UNIT


SECONDARY
PRIMARY
PRIMARY
CMK-P3X
CMK-P3X
CMK-P3X
IC2
IC3
IC51
IC61
IC52
IC5301
IC3401
MAIN
SUB
GND
FLAC
FLBIAS
V+B
V-B
GNDA
GNDB
ROUT
LOUT
GND+5.6

Q3411 Q3393 Q3392 Q3391
Q3481 Q3712 Q3381 Q3383
Q3711 Q3701 Q3731 Q3721
Q3741 Q3752 Q3722

5. PCB PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*

● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

● *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56×10^1 → 561 .... RD1/4PU $\boxed{5}\boxed{6}\boxed{1}$ J
47k Ω → 47×10^3 → 473 .... RD1/4PU $\boxed{4}\boxed{7}\boxed{3}$ J
0.5 Ω → R50 .... RN2H $\boxed{R}\boxed{5}\boxed{0}$ K
1 Ω → 1R0 .... RS1P $\boxed{1}\boxed{R}\boxed{0}$ K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562×10^1 → 5621 .... RN1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ F

LIST OF ASSEMBLIES

Mark	No.	Description	Part No.
		FM/AM TUNER MODULE	AXQ7077
NSP		MECHANISM BOARD ASSY	PWX1192
NSP		MOTH ASSY	AWM7323
		├CD MAIN UNIT	AWZ8984
		├CD KEYB1 UNIT	AWZ8985
		├CD KEYB2 UNIT	AWZ8986
		├CD FLDP UNIT	AWZ8987
		├CD CNB UNIT	AWZ8988
		└CD DPKEY UNIT	AWZ8989
NSP		POWER ASSY	AWM7324
		├POWER AF UNIT	AWZ8991
		├POWER HP UNIT	AWZ8992
		├POWER AMP UNIT	AWZ8990
		├POWER TRANS UNIT	AWZ8993
		└POWER SPTB UNIT	AWZ8994

A FM/AM TUNER MODULE

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC6201		LA1832ML
	IC6202		LC72131MD
	Q6102		2SC2223
	Q6203		2SC2705
	Q6201,Q6202		2SC2712
	Q6103,Q6214,Q6601		2SC2714
	Q6104,Q6105		2SK302
	Q6101		3SK194
	Q6204		DTA124ES
	Q6205		DTC124EK
	D6202		1SS254
	D6101-D6104		1SV228

COILS AND FILTERS

Mark	No.	Description	Part No.
	L6106		ATC1003
	L6105		ATC1015
	L6101		ATC1016
	L6102		ATC1017
	L6103		ATC1018
	L6104		ATC1019
	F6203		ATF-119
	F6206		ATF7008
	F6601		ATF7009
	F6204		ATF7010
	F6202		ATF7011
	L6107		ATH1043
	L6603		LAU220J
	L6206,L6208,L6605		LAU2R2J

TRANSFORMERS

Mark	No.	Description	Part No.
	T6201		ATB7008
	T6101		ATE7002

CAPACITORS

Mark	No.	Description	Part No.
	C6113,C6212,C6274,C6275,C6611		CCSQCH101J50
	C6116,C6208,C6221		CCSQCH150J50
	C6222		CCSQCH180J50
	C6271		CCSQCH200J50
	C6117		CCSQCH330J50
	C6608		CCSQCH680J50
	C6118		CCSQCH8R0D50
	C6111,C6122		CCSQCK1R0C50
	C6112,C6127		CCSQCK2R0C50
	C6105		CCSQSL471J50
	C6101		CCSQTH110J50
	C6119		CCSQTH150J50
	C6109		CCSQTH270J50
	C6107,C6110		CCSQTH300J50
	C6106		CCSQTH330J50
	C6234,C6235		CEAL1R0M50
	C6245		CEAL470M16
	C6224		CEAS100M50
	C6243		CEAT101M16
	C6231		CEAT1R0M50
	C6227		CEAT220M50
	C6236		CEAT2R2M50
	C6216		CEAT330M16
	C6262		CEAT3R3M50
	C6219		CEAT470M10
	C6244		CEAT470M16
	C6249,C6250,C6265,C6266		CEAT4R7M50
	C6258		CEJA470M16
	C6215		CFTLA103J50
	C6214		CFTLA224J50

Mark	No.	Description	Part No.
	C6115,C6125,C6126,C6211,C6254		CKSQYB102K50
	C6601		CKSQYB102K50
	C6102,C6114,C6121,C6123,C6124		CKSQYB103K50
	C6210,C6213,C6237,C6267,C6276		CKSQYB103K50
	C6279,C6281,C6604		CKSQYB103K50
	C6251,C6252		CKSQYB123K50
	C6606,C6607		CKSQYB182K50
	C6203,C6259		CKSQYB223K50
	C6228		CKSQYB472K50
	C6209		CKSQYB473K50
	C6230		CKSQYB821K50
	C6218,C6223,C6255		CKSQYF103Z50
	C6220,C6226,C6242,C6256		CKSQYF223Z50
	C6225		CKSQYF473Z50
	C6610		CKSYB103K50

RESISTORS

Mark	No.	Description	Part No.
	R6602		RD1/4PU221J
	R6115,R6119,R6123,R6127,R6129		RS1/8S0R0J
	R6906,R6909,R6911		RS1/8S0R0J
	R6112		RS1/8S473J
	VR6201(10kΩ)		RCP1045
	Other Resistors		RS1/10S□□□J

OTHERS

Mark	No.	Description	Part No.
	BN6202	2P TERMINAL WITH PAL	AKA7001
	X6202	CRYSTAL RESONATOR (456kHz)	ASS1066
	X6201	CRYSTAL RESONATOR (7.2MHz)	ASS1093
	CN6201	14P SOCKET	KP200IA14L
		AM RF TUNING BLOCK	AXX7042

B MECHANISM BOARD ASSY

SWITCH

Mark	No.	Description	Part No.
	S610		DSG1016

OTHERS

Mark	No.	Description	Part No.
	CN610	MT CONNECTOR(4P)	173979-4

C CD MAIN UNIT

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC3601		BU1922F
	IC1101		CXA1372BQ
	IC1301		CXD2529Q
⚠	IC3901,IC3902		ICP-N20
	IC1201		LA6517
	IC1202		LA6520
	IC6101		PD4843A
	Q3904,Q6001,Q6004,Q6103		2SA1162
	Q3901		2SA1560
	Q3903,Q6002,Q6003,Q6101		2SC2712
	Q3902		2SC4040
	Q1543,Q1544		2SD2114K
	Q1341		2SK246
	Q3601		DTA114EK
	Q1342,Q1541,Q1542,Q3905		DTA124EK
	Q6102		DTC143EK
	D1301,D1302,D1341,D3611		1SS254
	D6101-D6104		1SS254
	D6907,D6908		MTZJ15B
	D1218		MTZJ6.8B
	D6801-D6805,D6904-D6906		MTZJ8.2B
	D6901-D6903		UDZ8.2B

COILS

Mark	No.	Description	Part No.
	L114	Beads Filter	ATX1012
	L1305,L1306,L1310		LAU100J
	L1303		LAU1R0J
	L6101		LAU220J

CAPACITORS

Mark	No.	Description	Part No.
	C6104		ACH7013
	C6106		CCSQCH101J50
	C1341,C1342		CCSQCH120J50
	C1481,C1482		CCSQCH151J50
	C1326		CCSQCH220J50
	C1391-C1393,C6114,C6120,C6124		CCSQCH221J50
	C6126		CCSQCH221J50
	C3601,C3602		CCSQCH270J50
	C3604		CCSQCH271J50
	C1118,C3605		CCSQSL561J50
	C1483,C1484		CCSQSL681J50
	C1211,C1212,C1485,C1486,C3603		CEAL100M16
	C6107,C6130		CEAL100M16
	C1111,C1302,C1303,C1311-C1313		CEAL101M6R3
	C1316,C6101		CEAL101M6R3
	C3901,C6109		CEAL1R0M50
	C3607		CEAL330M10
	C1103,C1105		CEAL4R7M35
	C1309		CEALR47M50
	C1119,C6121,C6122,C6125		CKSQYB102K50
	C1107,C1112,C1117,C1125,C1218		CKSQYB103K50
	C1101,C1102,C1104,C1106		CKSQYB104K25
	C1306,C6118,C6119		CKSQYB152K50
	C1114		CKSQYB182K50
	C6903,C6904		CKSQYB332K50
	C1109,C1113,C1116		CKSQYB333K50
	C1115		CKSQYB472K50
	C1108,C1307		CKSQYB473K50
	C6001,C6105,C6131		CKSQYB474K16
	C1110,C1122,C1205,C1210,C1215		CKSQYF103Z50
	C1219,C1225,C1304,C1317,C1318		CKSQYF103Z50
	C1320-C1322,C1390,C3608,C3611		CKSQYF103Z50
	C6102,C6103,C6108,C6111,C6113		CKSQYF103Z50
	C6199,C6901,C6902,C6907		CKSQYF103Z50

RESISTORS

Mark	No.	Description	Part No.
⚠	R1201,R1202		RFA1/4PS4R7J
	R6801		RN1/10SE1001D
	VR1101,VR1102(22kΩ)		PCP1030
	Other Resistors		RS1/10S□□□J

OTHERS

Mark	No.	Description	Part No.
	CN1101	FPC CONNECTOR(12P)	12FMZ-ABT
	CN1202	MT CONNECTOR(4P)	173981-4
	CN1205	MT CONNECTOR(5P)	173981-5
	CN6101	FFC CONNECTOR(33P)	52045-3345
	CN6202	FFC BOTTOM CONNECTOR(5P)	52492-0520

Mark	No.	Description	Part No.
	CN6901	SOCKET(19P)	AKP7001
	CN6801	10P MINI DIN SOCKET	AKP7015
	X3601	CRYSTAL RESONATOR (4.332MHz)	ASS7004
	CN3611	14P PLUG	KM200IA14
	CN6102	13P PLUG	KM200TA13
	CN6103	18P PLUG	KM200TA18
	X1341	CRYSTAL RESONATOR (16.9344MHz)	PSS1008
	CN1102	6P SIDE POST	VKN-004
	KN1301,KN6101	EARTH METAL FITTING	VNF1084
	X6101	CERAMIC RESONATOR (4.19MHz)	VSS1014

D CD KEYB1 UNIT

SEMICONDUCTORS

D6203	1SS254
D6201	SLP3118C51H

SWITCHES

S6201,S6202	RSG1034

RESISTORS

All Resistors	RS1/10S□□□J

OTHERS

CN6201	5P FFC CONNECTOR	52044-0545

E CD KEYB2 UNIT

SEMICONDUCTOR

D6202	SLP3118C51H

SWITCHES

S6203-S6207	RSG1034

RESISTORS

All Resistors	RS1/10S□□□J

F CD FLDP UNIT

SEMICONDUCTORS

IC5701	LC75712E
Q5703	2SC2712
Q5701	DTC124EK
D5702	11ES2
D5701	1SS254
D5708	MTZJ39C
D5709	MTZJ8.2B

COILS

L5711	LAU100J
L5701	LAU220J

SWITCHES

S5755-S5760	RSG1030

Mark	No.	Description	Part No.

CAPACITORS

C5701	CCSQCH300J50
C5707	CEAL100M16
C5703,C5705	CEAL101M6R3
C5721,C5722	CEAL1R0M50
C5708	CEAL470M16
C5713-C5715	CKSQYB102K50
C5709	CKSQYB103K50
C5711-C5712,C5725,C5726	CKSQYB473K50
C5706	CKSQYF103Z50
C5704	CKSQYF224Z25
C5710	CKSQYF473Z50

RESISTORS

R5724	RA11T473J
R5721,R5722	RA15T473J
R5723	RA8T473J
Other Resistors	RS1/10S□□□J

OTHERS

	9P CABLE HOLDER	51048-0900
	12P CABLE HOLDER	51048-1200
CN5751	3P JUMPER CONNECTOR	52147-0310
V5701	FL TUBE	AAV7051
	FL SPACER	AEB7091
X5701	REMOTE RECEIVER UNIT	GP1U27X
CN5701	10P SOCKET	KP200TA10L

G CD CNB UNIT

SEMICONDUCTORS

D5707	MTZJ2.0A
D5703-D5706	MTZJ8.2B

OTHERS

CN5703	10P MINI DIN SOCKET	AKP7015
CN5702	10P PLUG	KM200TA10

H CD DPKEY UNIT

SWITCHES

S5751-S5754	RSG1030

RESISTORS

All Resistors	RS1/10S□□□J

I POWER AF UNIT

SEMICONDUCTORS

IC3011	M62419FP
IC3071,IC3201	NJM4558MD
IC3501	NJM4560M
IC3041	UPC4570G2
Q3041	2SA1048
Q3531,Q3532	2SD2114K
Q3533	DTA124EK
D3043	MTZJ15B

Mark	No.	Description	Part No.
	CAPACITORS		
	C3051,C3052,C3505,C3506		CCSQCH101J50
	C3503,C3504		CCSQCH470J50
	C3016,C3020,C3028,C3030		CEAL100M16
	C3091,C3092,C3203,C3221		CEAL100M16
	C3241,C3242,C3501,C3502		CEAL100M16
	C3521,C3522		CEAL100M16
	C3041		CEAL330M10
	C3049,C3201,C3507		CEAL470M16
	C3071,C3072		CEALR22M50
	C3015,C3021,C3027,C3029,C3045		CEAT100M50
	C3047,C3048		CEAT100M50
	C3013,C3014,C3043		CEAT1R0M50
⚠	C3044		CEYA470M10
	C3033,C3034,C3222		CFTLA683J50
	C3509,C3510		CKSQYB102K50
	C3042,C3046		CKSQYF103Z50
	C3050,C3053		CKSQYF473Z50
	C3223		CQMA333J50
	C3031,C3032,C3035,C3036		CQMA682J50
	RESISTORS		
	R3521,R3522		RD1/4PU100J
	R3507,R3508		RD1/4PU470J
	Other Resistors		RS1/10S□□□J
	OTHERS		
	CN3001	13P SOCKET	KP200TA13L
	CN3002	18P SOCKET	KP200TA18L

J POWER HP UNIT

	CAPACITORS		
	C3511,C3512		CKSQYF223Z50
	C3541-C3543		CKSQYF473Z50
	RESISTORS		
	All Resistors		RS1/10S□□□J
	OTHERS		
		5P CABLE HOLDER	51048-0500
	JA3501	MINI JACK	AKN7003
	J3501	2mm PITCH JUMPER(5P)	D20PDY0510E
	KN3541	EARTH METAL FITTING	VNF1084

K POWER AMP UNIT

	SEMICONDUCTORS		
⚠	IC61		AEK7003
⚠	IC51		AEK7005
⚠	IC32		AEK7007
⚠	IC3401		LM3886TF
⚠	IC53		NJM4558D-D
⚠	IC31		NJM78M56FA
⚠	IC3301		STK401-030
⚠	Q61		2SA1048
	Q3721,Q3722,Q3731		2SA1162
⚠	Q23		2SB1238X

Mark	No.	Description	Part No.
⚠	Q53,Q73		2SB1566
⚠	Q52		2SC2458
	Q72		2SC2458
	Q3383,Q3711,Q3712,Q3741		2SC2712
	Q3391,Q3392,Q3411,Q3701,Q3752		2SD2114K
⚠	Q62		2SD2395
	Q3393,Q3481		DTA124EK
	Q21,Q3751		DTA124ES
	Q3381		DTA144EK
	Q51		DTC124ES
⚠	D21,D22,D3751		11ES2
	D25,D3381,D3701		1SS254
	D3721,D3722,D3731		1SS355
⚠	D31		D2SBA20(B)
⚠	D11		D3SBA20(B)
	D23		MTZJ33A
⚠	D24		MTZJ6.2B
⚠	D51,D61		MTZJ18B
	TH3791,TH3792		AEX7002
	RELAYS		
	RY3331,RY3431		ASR7007
	CAPACITORS		
	C3307,C3308		CCSQCH100D50
	C3403		CCSQCH121J50
	C3303,C3304		CCSQCH330J50
	C3305,C3306		CCSQCH470J50
	C33,C51,C71		CEAL1R0M50
	C21		CEANP101M35
	C23-C25,C3313,C3314,C3401		CEAT100M50
	C3741		CEAT100M50
	C22		CEAT101M2A
	C3323,C3354		CEAT101M50
	C3321,C3322,C3421,C3422		CEAT220M50
	C3711		CEAT221M6R3
	C3309,C3310		CEAT330M16
	C3405,C3411		CEAT470M10
	C32		CEAT472M16
	C13,C14		CEAT472M35
	C31		CEAT682M16
	C34		CEJA100M16
	C53,C63		CEJA330M16
	C3301,C3302		CEZA100M50
	C3402		CKSQYB104K25
	C3331-C3333,C3431,C3432		CKSQYB473K50
	C12,C3355,C3356,C3406		CKSQYF103Z50
	C3381,C3423,C3424,C61,C62		CKSQYF473Z50
	C72		CKSQYF473Z50
	RESISTORS		
⚠	R3725,R3726,R3733(0.1Ω/1W)		ACN7032
	R3331,R3332,R3431		RD1/4PU100J
	R3481		RD1/4PU123J
	R23,R25		RD1/4PU223J
	R64,R65		RD1/4PU562J
	R3307,R3308,R3403		RD1/4PU563J
⚠	R26,R27,R73		RFA1/4PS100J
⚠	R3321,R3322		RFA1/4PS101J
	R3724		RS1/10S102J
	Other Resistors		RS1/10S□□□J

OTHERS

Mark	No.	Description	Part No.
	CN101	FFC CONNECTOR(33P)	52045-3345
	CN3301	14P JUMPER CONNECTOR	KPE14
		PCB BINDER	VEF1040
		M PLATE	ANG7169

L POWER TRANS UNIT

SEMICONDUCTORS

Mark	No.	Description	Part No.
⚠	IC2,IC3		AEK7017

COIL

Mark	No.	Description	Part No.
⚠	L1		ATF-151

CAPACITORS

Mark	No.	Description	Part No.
⚠	C1,C2(10000pF/AC250V)		ACG7020
⚠	C4-C6		CKSQYB473K50
	C7		CQMA103J50

OTHERS

Mark	No.	Description	Part No.
	1	CABLE HOLDER(9P)	51052-0900
	H1,H2	FUSE CLIP	AKR1003
⚠	CN1	1P AC INLET	BKP1046

M POWER SPTB UNIT

SEMICONDUCTOR

Mark	No.	Description	Part No.
	D3831		1SS254

COILS

Mark	No.	Description	Part No.
	L3851-L3853		ATH-059
	L3831		LAU100J

CAPACITORS

Mark	No.	Description	Part No.
	C3801,C3802		CCSQCH101J50
	C3803,C3804		CCSQSL471J50
	C3832		CEAS470M10
	C3831		CEAT220M50
	C3011,C3012		CEAT2R2M50
	C3843-C3845		CKSQYB102K50
	C3805,C3811,C3812,C3833		CKSQYF103Z50
	C3841,C3842,C3846		CKSQYF103Z50
	C3861-C3866		CKSQYF473Z50

RESISTORS

Mark	No.	Description	Part No.
	R3851-R3853		RD1/4LMF101J
	R3861,R3862,R3865		RD1/4PU6R8J
⚠	R3833		RFA1/4PS330J
	Other Resistors		RS1/10S□□□J

OTHERS

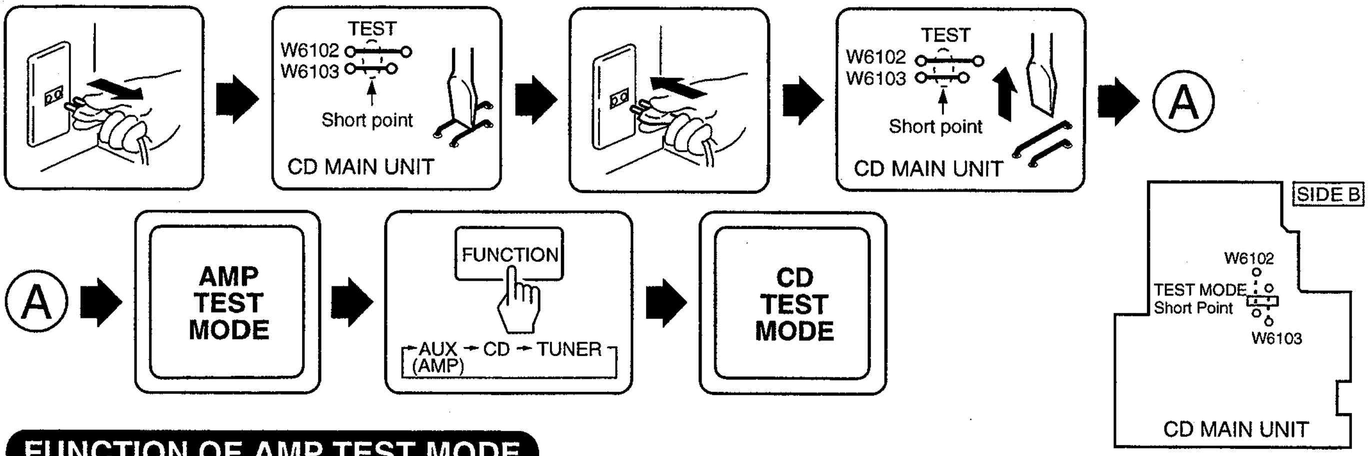
Mark	No.	Description	Part No.
		6P CABLE HOLDER	51048-0600
		14P CABLE HOLDER	51063-1405
	CN3842	2P CONNECTOR	5569-02A1
	CN3841	SPEAKER TERMINAL(4P)	AKE7001
	JA3801	AUDIO 2P PIN JACK	RKB1041
	JA3811	OPTICAL OUTPUT JACK	TOTX178

6. ADJUSTMENT

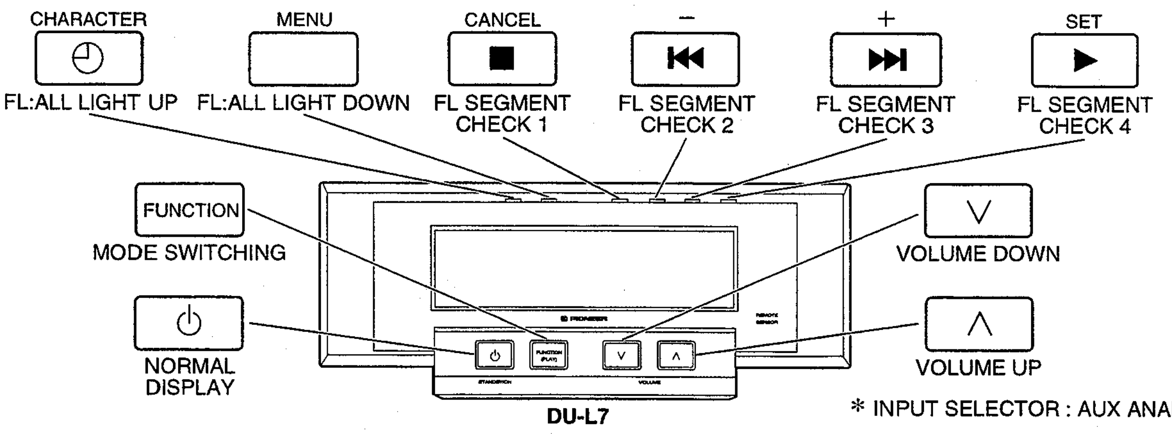
6.1 TEST MODE

6.1.1 HOW TO START/CANCEL TEST MODE

TEST MODE : ON

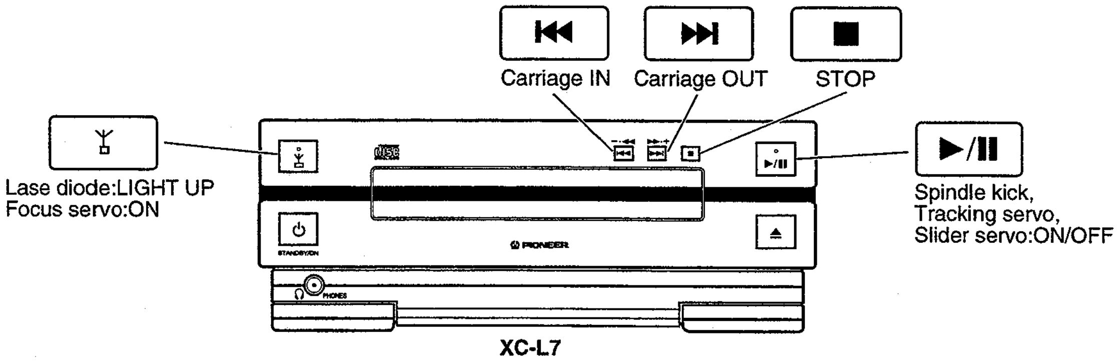

TEST
W6102
W6103
Short point
CD MAIN UNIT
TEST
W6102
W6103
Short point
CD MAIN UNIT
A
A
AMP TEST MODE
FUNCTION
AUX → CD → TUNER
(AMP)
CD TEST MODE
SIDE B
W6102
TEST MODE Short Point
W6103
CD MAIN UNIT

FUNCTION OF AMP TEST MODE

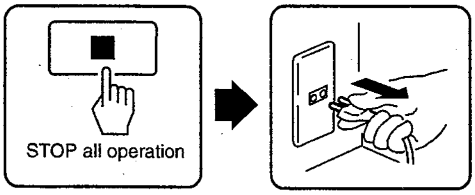

CHARACTER
FL:ALL LIGHT UP
MENU
FL:ALL LIGHT DOWN
CANCEL
FL SEGMENT CHECK 1
−
FL SEGMENT CHECK 2
+
FL SEGMENT CHECK 3
SET
FL SEGMENT CHECK 4
FUNCTION
MODE SWITCHING
NORMAL DISPLAY
VOLUME DOWN
VOLUME UP
DU-L7

* INPUT SELECTOR : AUX ANALOG

FUNCTION OF CD TEST MODE


Carriage IN
Carriage OUT
STOP
Lase diode:LIGHT UP
Focus servo:ON
Spindle kick,
Tracking servo,
Slider servo:ON/OFF
XC-L7

TEST MODE : STOP → CANCEL


STOP all operation

6.2 TUNER SECTION

6.2.1 FM TUNER SECTION

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	FM SG (1kHz, ± 75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBµV)			
1	Front End Sensitivity	106	0-30	106MHz	L6104 L6105 L6102 T6101	Adjust so that the DC voltage between the IC6201-pin 20 and GND becomes at maximum level.
2	Stereo Distortion	98 (ON STEREO)	80	98MHz	T6101	Minimize the distortion with 1/8 rotation of the core.
3	TUNED IND. Lighting Level	98	18 ± 2	98MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Note:
Before adjusting, make sure there is no gap between L6101 and L6102 as well as between L6103 and L6104. If there is a gap between them, bring them into contact with each other first, and then make adjustments.

6.2.2 AM TUNER SECTION

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBµV/m)			
1	Front End Sensitivity	999 *1	35~45	999kHz *1	T6201	Adjust so that the DC voltage between the IC6201-pin 20 and GND becomes at maximum level.

*1: For the area using 10kHz step, frequencies should be 1000kHz.

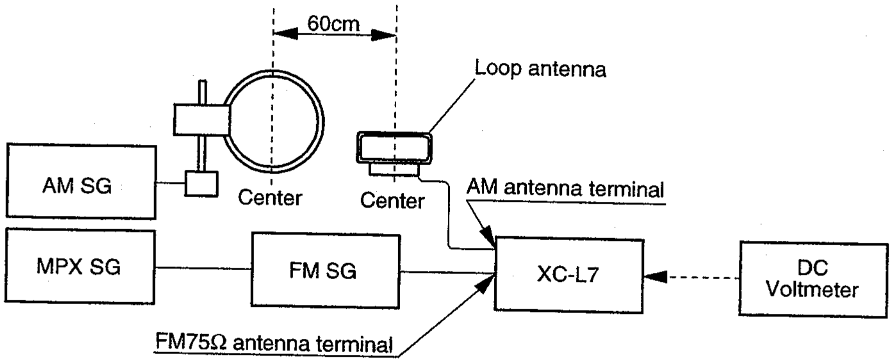

60cm
Loop antenna
AM SG
Center
Center
AM antenna terminal
MPX SG
FM SG
XC-L7
DC Voltmeter
FM75Ω antenna terminal

Fig. 1 AM and FM Adjustment Wiring Diagram

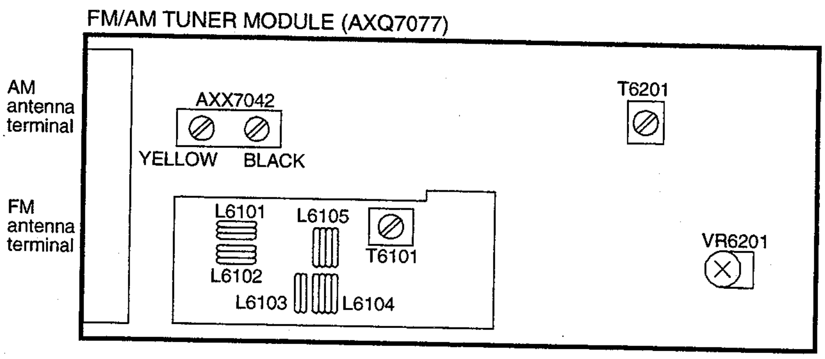
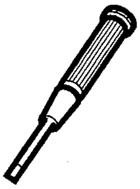
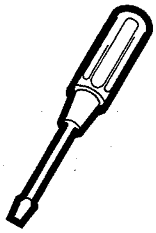
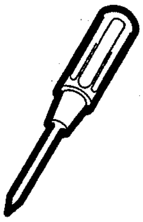
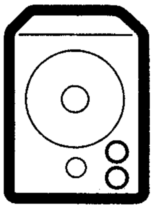
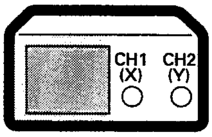
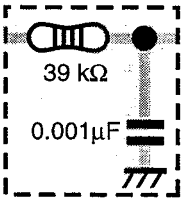

FM/AM TUNER MODULE (AXQ7077)
AM antenna terminal
FM antenna terminal
AXX7042
YELLOW
BLACK
T6201
L6101
L6105
T6101
L6102
L6103
L6104
VR6201

Fig. 2 Adjustment Point

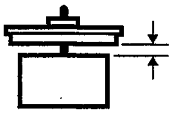
6.3 CD SECTION

6.3.1 PREPARATIONS

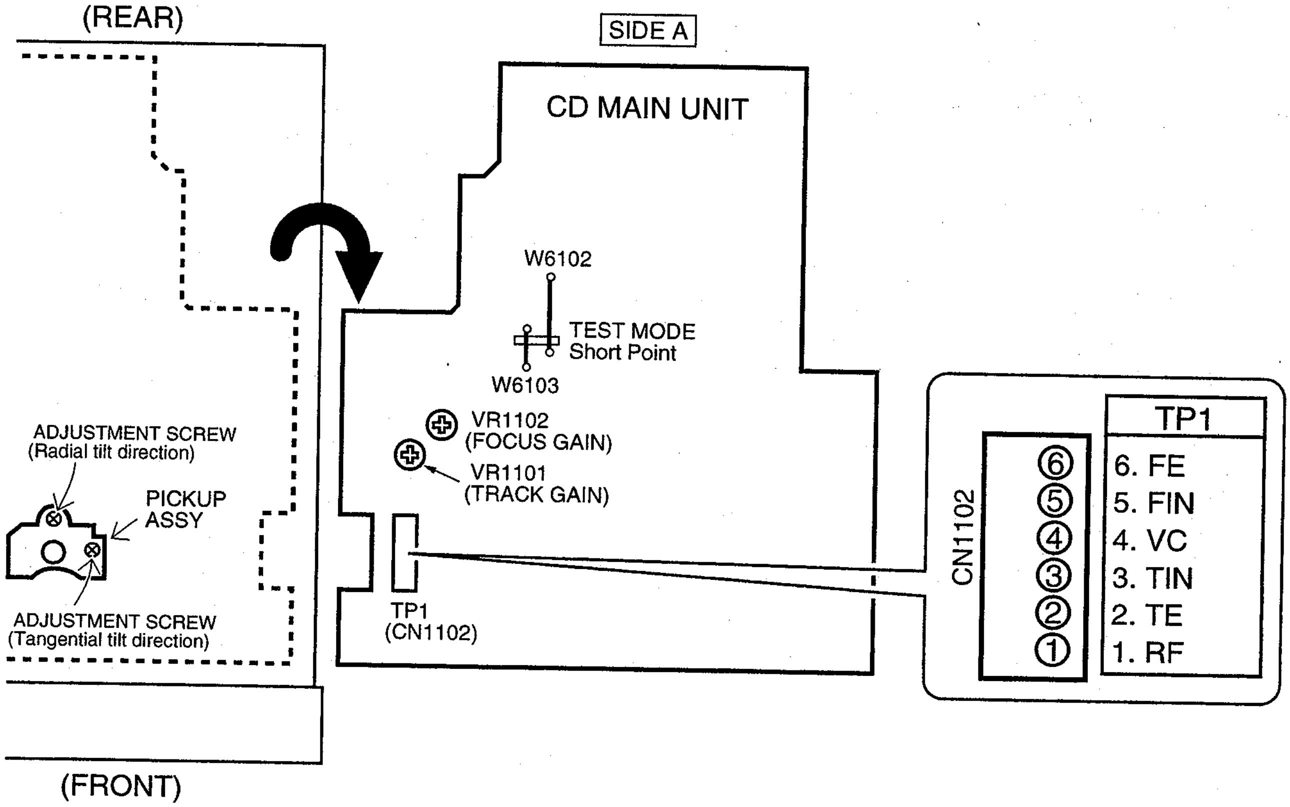
■ Jigs and Measuring Instruments

 8-cm DISC (With at least about 20 minutes recording)	 CD TEST DISC (YEDS-7)	 ⊖ Precise screwdriver	 ⊖ screwdriver (small)	 ⊕ screwdriver (medium)
 Ball point hexagon wrench (size: 1.5mm) GGK1002	 ⊕ screwdriver (large)	 Low-frequency oscillator	 Dual-trace oscilloscope (10 : 1 probe)	 Low pass filter (39 kΩ + 0.001μF)

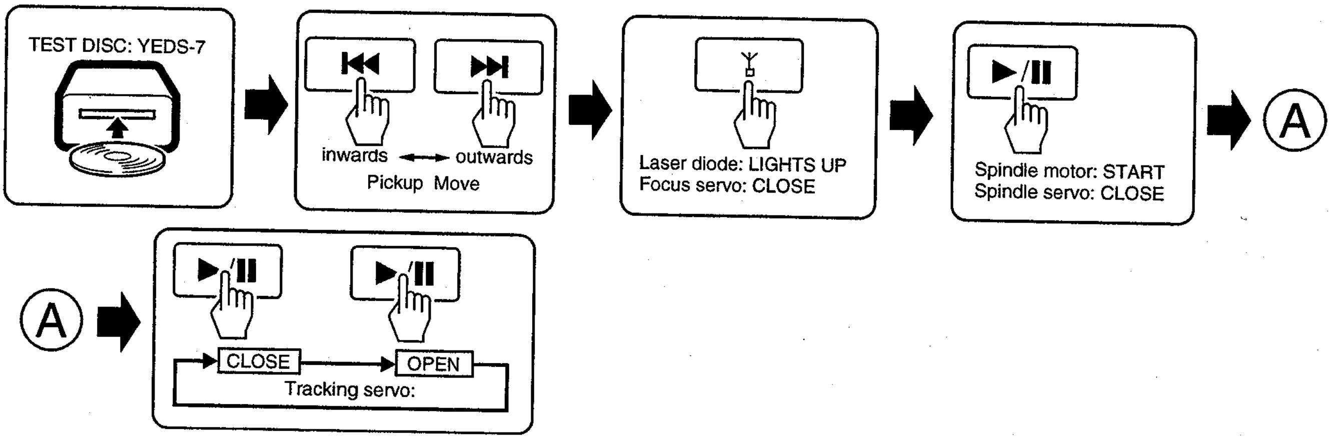
■ Necessary Adjustment Points

When		Adjustment Points
Exchange PICKUP	➡	1, 2, 3, 4, 5, 6 → Page 47 to 49
Exchange CD MAIN UNIT	➡	1, 2, 3, 4, 5, 6 → Page 47 to 49
Exchange SERVO MECH ASSY	➡	1, 2, 3, 4, 5, 6 → Page 47 to 49
Exchange SPINDLE MOTOR	➡	 ADJ → Page 9

■ Adjustment Locations

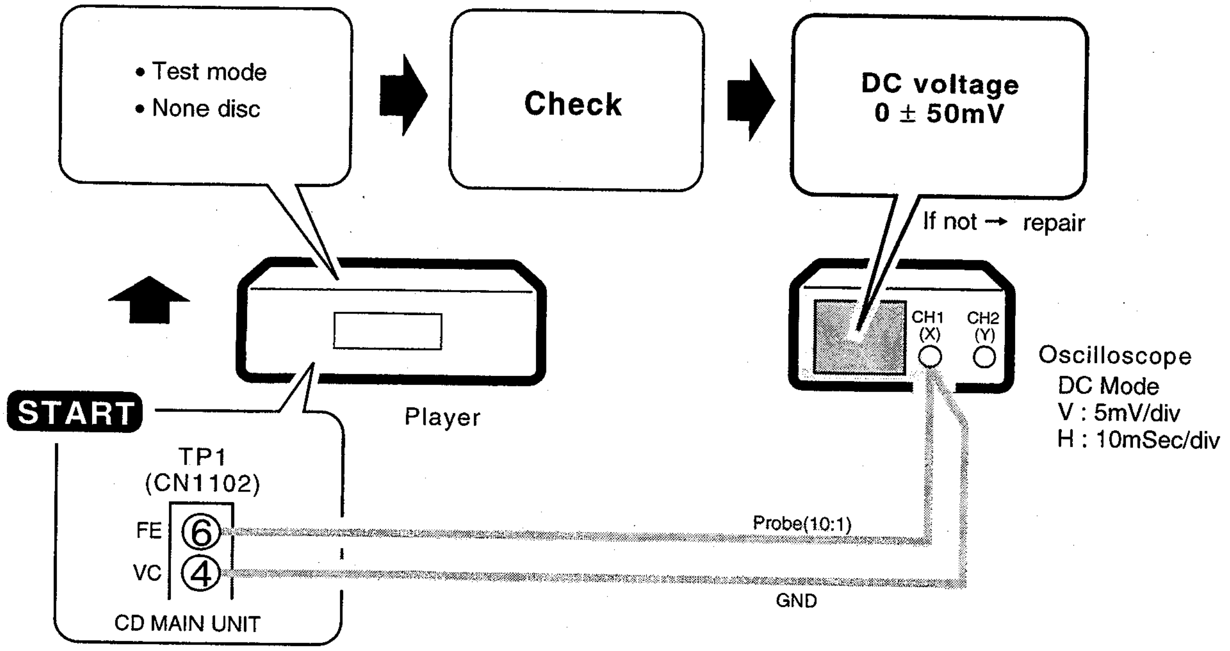

(REAR)
SIDE A
CD MAIN UNIT
W6102
TEST MODE
Short Point
W6103
VR1102
(FOCUS GAIN)
VR1101
(TRACK GAIN)
ADJUSTMENT SCREW
(Radial tilt direction)
PICKUP
ASSY
ADJUSTMENT SCREW
(Tangential tilt direction)
TP1
(CN1102)
CN1102
⑥
⑤
④
③
②
①
TP1
6. FE
5. FIN
4. VC
3. TIN
2. TE
1. RF
(FRONT)

TEST MODE : PLAY

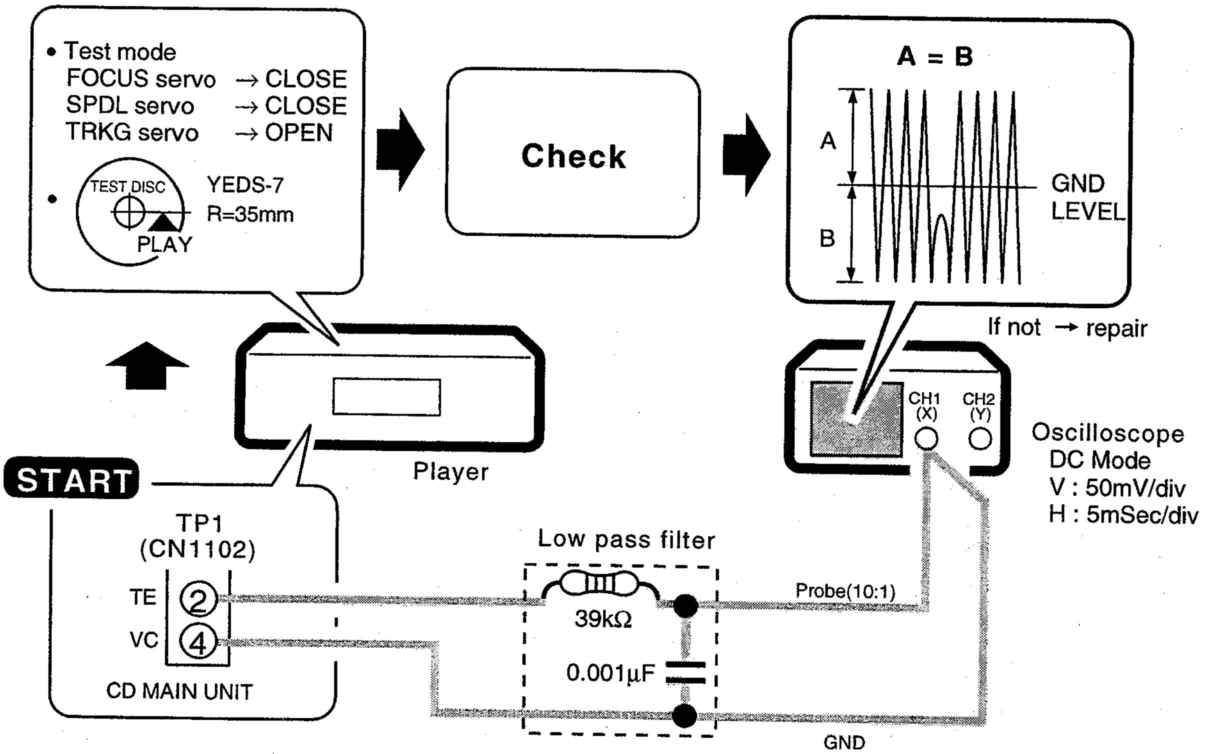

TEST DISC: YEDS-7
inwards
outwards
Pickup Move
Laser diode: LIGHTS UP
Focus servo: CLOSE
Spindle motor: START
Spindle servo: CLOSE
Ⓐ
Ⓐ
CLOSE
OPEN
Tracking servo:

■ Check and Adjustment

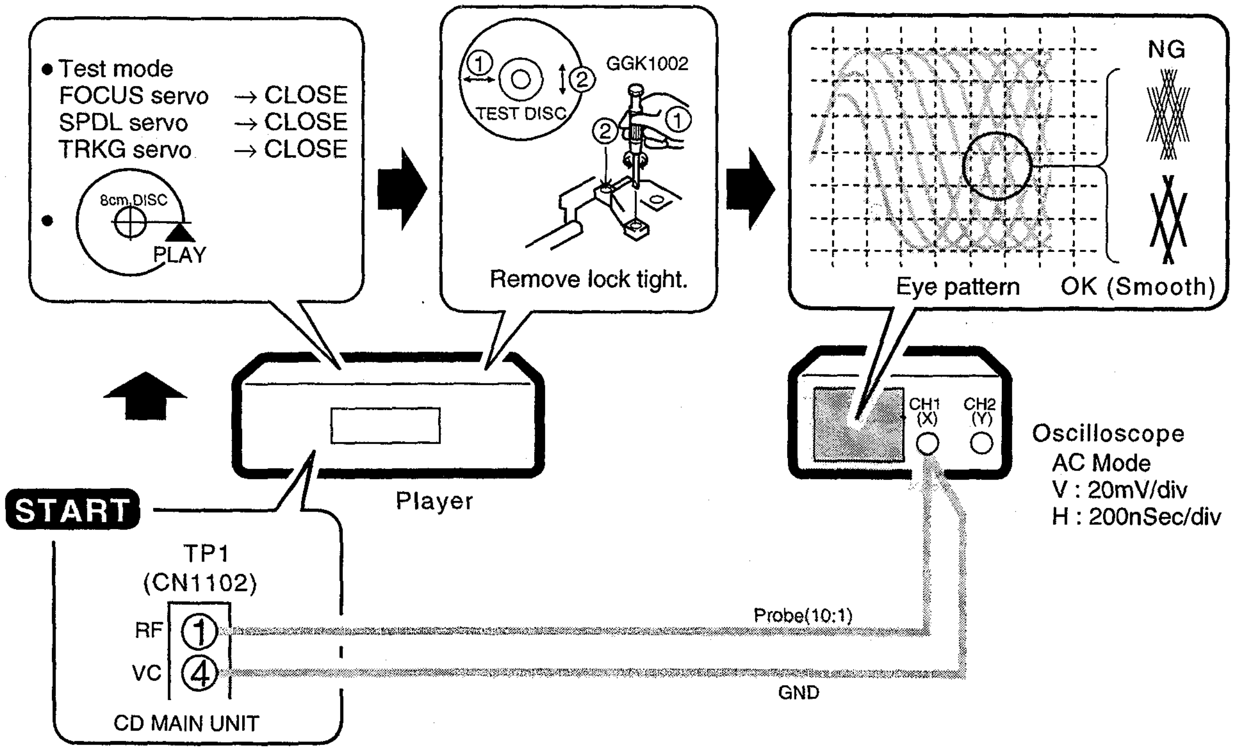
1. Focus Offset Check


• Test mode
• None disc
Check
DC voltage
0 ± 50mV
If not → repair
Player
START
TP1
(CN1102)
FE ⑥
VC ④
CD MAIN UNIT
Probe(10:1)
GND
CH1 (X)
CH2 (Y)
Oscilloscope
DC Mode
V : 5mV/div
H : 10mSec/div

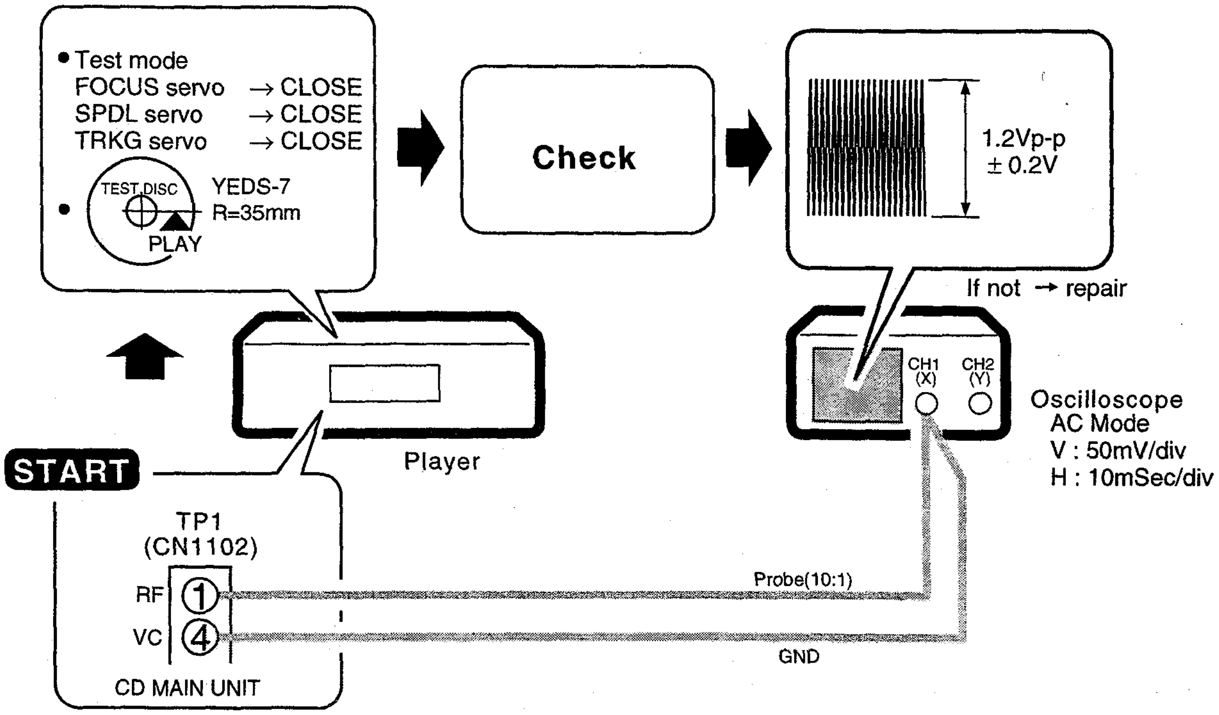
2. Tracking Error Balance Check


• Test mode
FOCUS servo → CLOSE
SPDL servo → CLOSE
TRKG servo → OPEN
• TEST DISC
PLAY
YEDS-7
R=35mm
Check
A = B
A
B
GND LEVEL
If not → repair
Player
START
TP1
(CN1102)
TE ②
VC ④
CD MAIN UNIT
Low pass filter
39kΩ
0.001µF
Probe(10:1)
GND
CH1 (X)
CH2 (Y)
Oscilloscope
DC Mode
V : 50mV/div
H : 5mSec/div

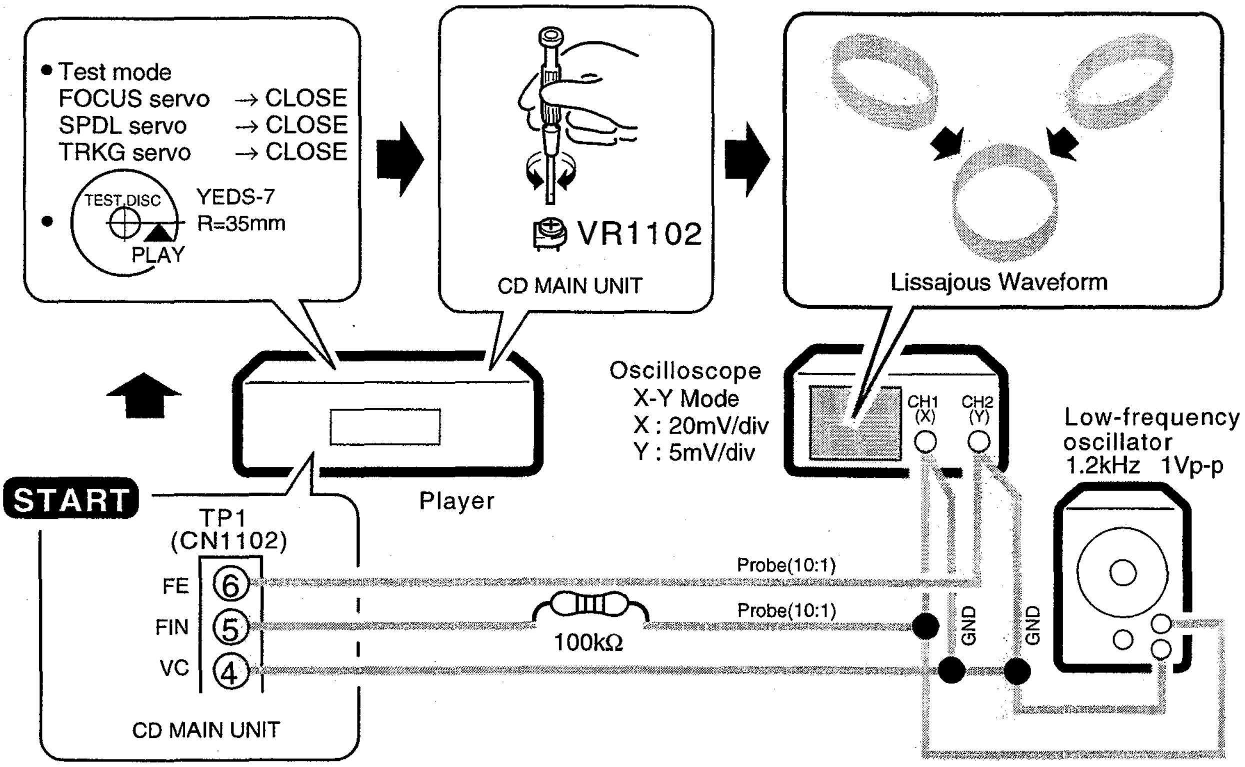
3. Pickup ① Radial/ ② Tangential Direction Tilt Adjustment


• Test mode
FOCUS servo → CLOSE
SPDL servo → CLOSE
TRKG servo → CLOSE
• 8cm DISC
PLAY
①
②
TEST DISC
GGK1002
①
②
Remove lock tight.
NG
Eye pattern
OK (Smooth)
START
Player
TP1
(CN1102)
RF ①
VC ④
CD MAIN UNIT
Probe(10:1)
GND
CH1 (X)
CH2 (Y)
Oscilloscope
AC Mode
V : 20mV/div
H : 200nSec/div

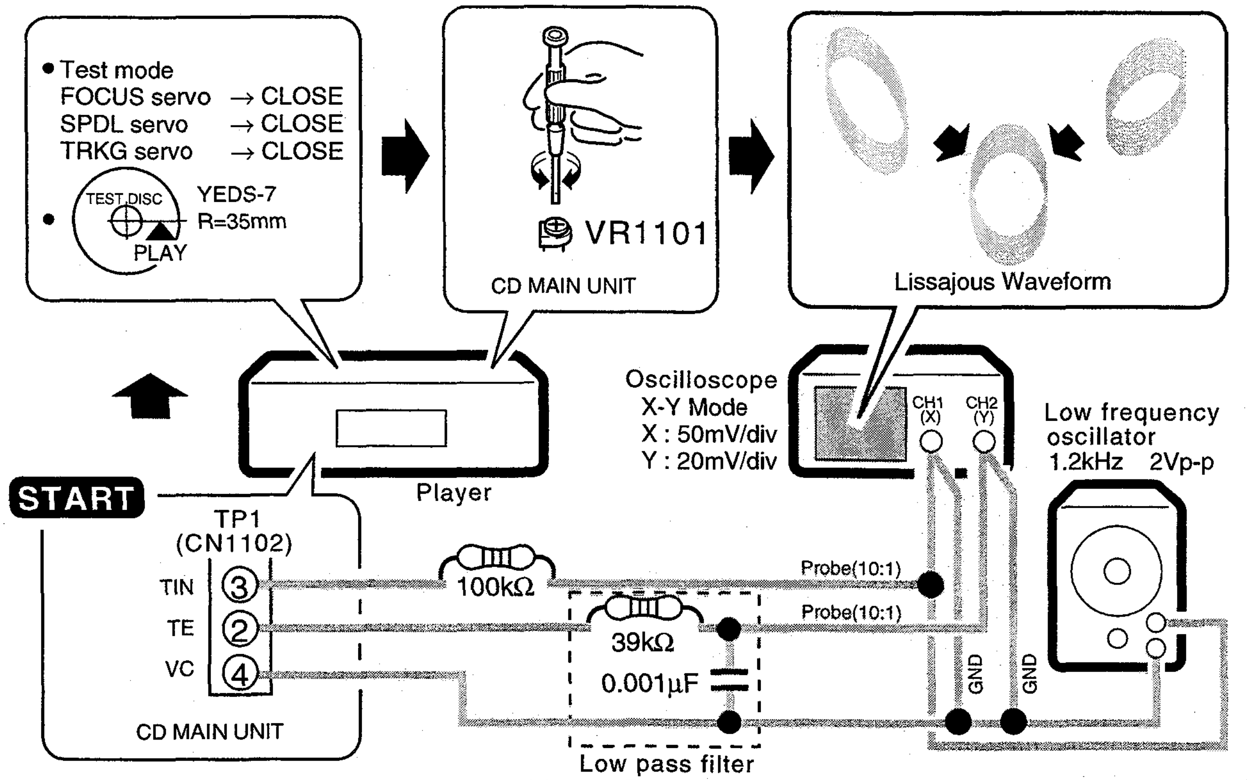
4. RF Level Check


• Test mode
FOCUS servo → CLOSE
SPDL servo → CLOSE
TRKG servo → CLOSE
• TEST DISC
YEDS-7
R=35mm
PLAY
Check
1.2Vp-p
± 0.2V
If not → repair
START
Player
TP1
(CN1102)
RF ①
VC ④
CD MAIN UNIT
Probe(10:1)
GND
CH1 (X)
CH2 (Y)
Oscilloscope
AC Mode
V : 50mV/div
H : 10mSec/div

5. Focus Servo Loop Gain Adjustment


• Test mode
FOCUS servo → CLOSE
SPDL servo → CLOSE
TRKG servo → CLOSE
TEST DISC
PLAY
YEDS-7
R=35mm
VR1102
CD MAIN UNIT
Lissajous Waveform
Oscilloscope
X-Y Mode
X : 20mV/div
Y : 5mV/div
CH1 (X)
CH2 (Y)
Low-frequency oscillator
1.2kHz 1Vp-p
START
Player
TP1 (CN1102)
FE ⑥
FIN ⑤
VC ④
100kΩ
Probe(10:1)
Probe(10:1)
GND
GND
CD MAIN UNIT

6. Tracking Servo Loop Gain Adjustment


• Test mode
FOCUS servo → CLOSE
SPDL servo → CLOSE
TRKG servo → CLOSE
TEST DISC
PLAY
YEDS-7
R=35mm
VR1101
CD MAIN UNIT
Lissajous Waveform
Oscilloscope
X-Y Mode
X : 50mV/div
Y : 20mV/div
CH1 (X)
CH2 (Y)
Low frequency oscillator
1.2kHz 2Vp-p
START
Player
TP1 (CN1102)
TIN ③
TE ②
VC ④
100kΩ
39kΩ
0.001μF
Low pass filter
Probe(10:1)
Probe(10:1)
GND
GND
CD MAIN UNIT

7. GENERAL INFORMATION

7.1 PARTS

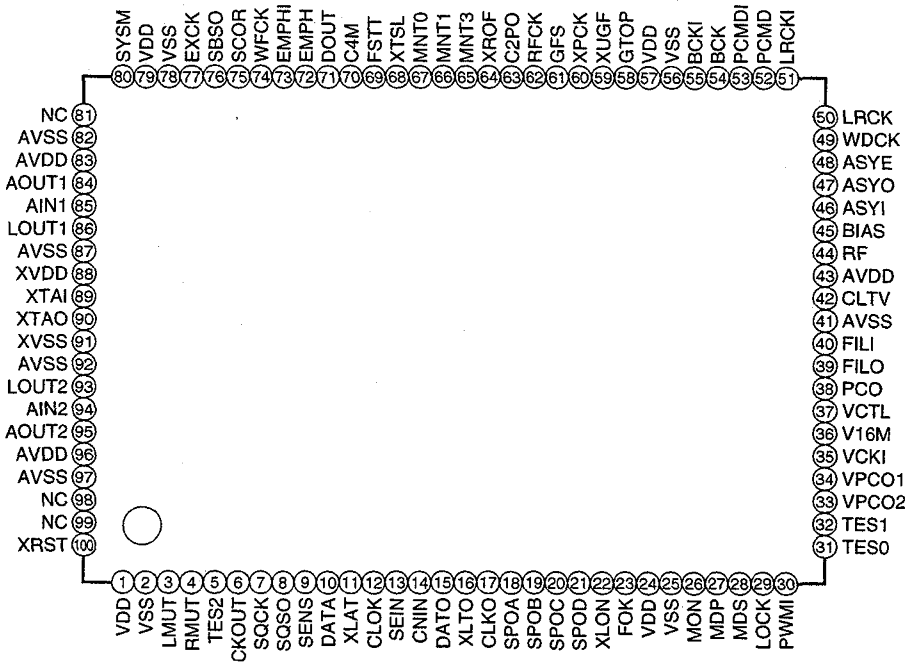
7.1.1 IC

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ CXD2529Q (CD MAIN UNIT : IC1301)

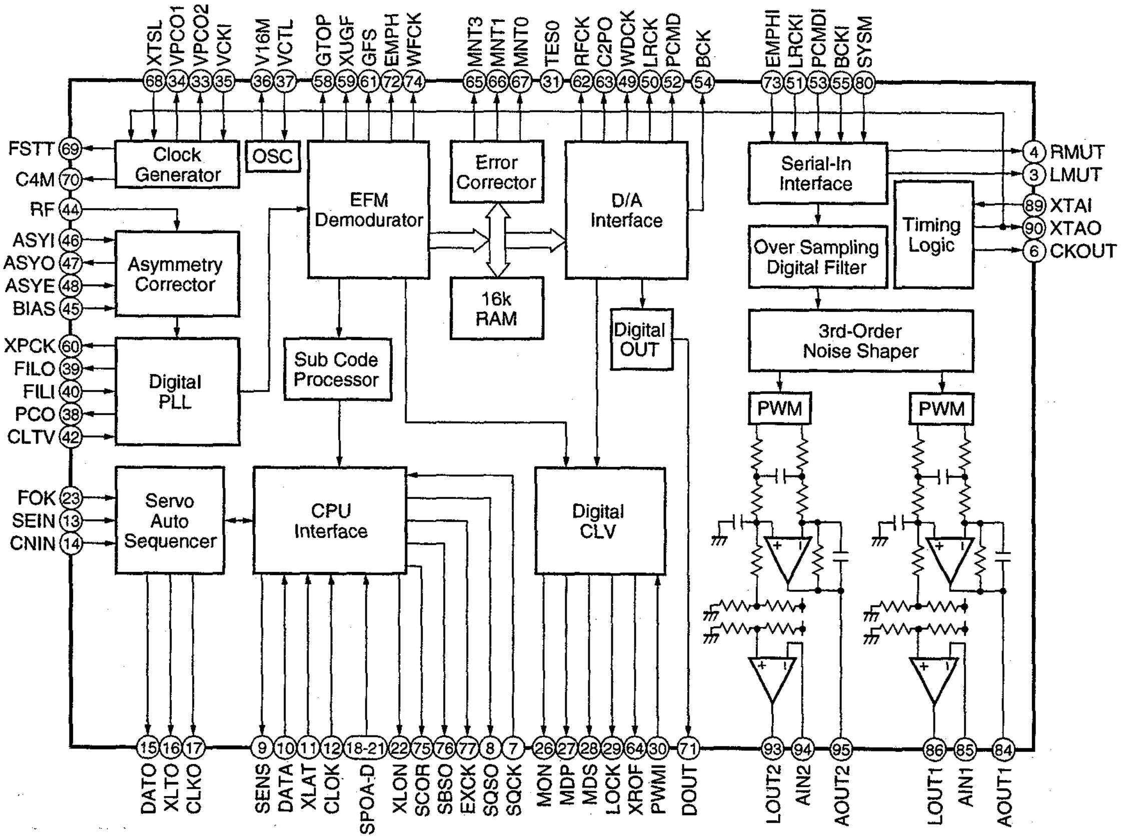
• DIGITAL SIGNAL PROCESSING for CD

● Pin Arrangement (Top view)



SYSM ㊵80
VDD (79)
VSS (78)
EXCK (77)
SBSO (76)
SCOR (75)
WFCK (74)
EMPHI (73)
EMPH (72)
DOUT (71)
C4M (70)
FSTT (69)
XTSL (68)
MNT0 (67)
MNT1 (66)
MNT3 (65)
XROF (64)
C2PO (63)
RFCK (62)
GFS (61)
XPCK (60)
XUGF (59)
GTOP (58)
VDD (57)
VSS (56)
BCKI (55)
BCK (54)
PCMDI (53)
PCMD (52)
LRCKI (51)
NC (81)
AVSS (82)
AVDD (83)
AOUT1 (84)
AIN1 (85)
LOUT1 (86)
AVSS (87)
XVDD (88)
XTAI (89)
XTAO (90)
XVSS (91)
AVSS (92)
LOUT2 (93)
AIN2 (94)
AOUT2 (95)
AVDD (96)
AVSS (97)
NC (98)
NC (99)
XRST (100)
(50) LRCK
(49) WDCK
(48) ASYE
(47) ASYO
(46) ASYI
(45) BIAS
(44) RF
(43) AVDD
(42) CLTV
(41) AVSS
(40) FILI
(39) FILO
(38) PCO
(37) VCTL
(36) V16M
(35) VCKI
(34) VPCO1
(33) VPCO2
(32) TES1
(31) TESO
① VDD
② VSS
③ LMUT
④ RMUT
⑤ TES2
⑥ CKOUT
⑦ SQCK
⑧ SQSO
⑨ SENS
⑩ DATA
⑪ XLAT
⑫ CLOK
⑬ SEIN
⑭ CNIN
⑮ DATO
⑯ XLTO
⑰ CLKO
⑱ SPOA
⑲ SPOB
⑳ SPOC
(21) SPOD
(22) XLON
(23) FOK
(24) VDD
(25) VSS
(26) MON
(27) MDP
(28) MDS
(29) LOCK
(30) PWMI

● Block Diagram



XTSL (68)
VPCO1 (34)
VPCO2 (33)
VCKI (35)
V16M (36)
VCTL (37)
GTOP (58)
XUGF (59)
GFS (61)
EMPH (72)
WFCK (74)
MNT3 (65)
MNT1 (66)
MNT0 (67)
TESO (31)
RFCK (62)
C2PO (63)
WDCK (49)
LRCK (50)
PCMD (52)
BCK (54)
EMPHI (73)
LRCKI (51)
PCMDI (53)
BCKI (55)
SYSM (80)
FSTT (69)
C4M (70)
RF (44)
ASYI (46)
ASYO (47)
ASYE (48)
BIAS (45)
XPCK (60)
FILO (39)
FILI (40)
PCO (38)
CLTV (42)
FOK (23)
SEIN ⑬
CNIN ⑭
Clock Generator
OSC
EFM Demodurator
Error Corrector
16k RAM
D/A Interface
Digital OUT
Serial-In Interface
Over Sampling Digital Filter
Timing Logic
3rd-Order Noise Shaper
PWM
PWM
Asymmetry Corrector
Digital PLL
Sub Code Processor
Servo Auto Sequencer
CPU Interface
Digital CLV
④ RMUT
③ LMUT
(89) XTAI
(90) XTAO
⑥ CKOUT
DATO ⑮
XLTO ⑯
CLKO ⑰
SENS ⑨
DATA ⑩
XLAT ⑪
CLOK ⑫
SPOA-D (18-21)
XLON (22)
SCOR (75)
SBSO (76)
EXCK (77)
SQSO ⑧
SQCK ⑦
MON (26)
MDP (27)
MDS (28)
LOCK (29)
XROF (64)
PWMI (30)
DOUT (71)
LOUT2 (93)
AIN2 (94)
AOUT2 (95)
LOUT1 (86)
AIN1 (85)
AOUT1 (84)

• Pin Function

No.	Pin Name	I/O	Function
1	VDD	–	Power supply (+5V)
2	VSS	–	GND
3	LMUT	O	Left-channel zero detection flag
4	RMUT	O	Right-channel zero detection flag
5	TES2	O	TEST output pin;normally open
6	CKOUT	O	Master clock frequency-divider output Selects and outputs XTAl × 1, × 1/2, × 1/4 or low only
7	SQCK	I	SQSO readout clock input
8	SQSO	O	Sub Q 80-bit serial output
9	SENS	O	SENS output to CPU
10	DATA	I	Serial data input from CPU
11	XLAT	I	Latch input from CPU Serial data is latched at the falling edge
12	CLOK	I	Serial data transfer clock input from CPU
13	SEIN	I	SENS input from SSP
14	CNIN	I	Track jump count signal input
15	DATO	O	Serial data output to SSP
16	XLTO	O	Serial data latch output to SSP Latched at the falling edge
17	CLKO	O	Serial data transfer clock output to SSP
18	SPOA	I	Microcomputer extended interface (input A)
19	SPOB	I	Microcomputer extended interface (input B)
20	SPOC	I	Microcomputer extended interface (input C)
21	SPOD	I	Microcomputer extended interface (input D)
22	XLON	O	Microcomputer extended interface (output)
23	FOK	I	Focus OK input Used for SENS output and the servo auto sequencer
24	VDD	–	Power supply (+5V)
25	VSS	–	GND
26	MON	O	Spindle motor on/off control output
27	MDP	O	Spindle motor servo control
28	MDS	O	
29	LOCK	O	GFS is sampled at 460Hz;when GFS is high, this pin outputs a high signal If GFS is low eight consecutive samples, this pin outputs low
30	PWMI	I	Spindle motor external control input
31	TES0	I	TEST pin;normally GND
32	TES1		
33	VPCO2	O	Wide-band EFM PLL charge pump output Turned on/off by FCSW of address E
34	VPCO1	O	Charge pump output for wide-band EFM PLL
35	VCKI	I	VCO2 oscillation input for the wide-band EFM PLL
36	V16M	O	VCO2 oscillation output for the wide-band EFM PLL
37	VCTL	I	VCO2 control voltage input for the wide-band EFM PLL
38	PCO	O	Master PLL charge pump output
39	FILO	O	Master PLL (slave=digital PLL) filter output
40	FILI	I	Master PLL filter input
41	AVSS	–	Analog GND
42	CLTV	I	Master VCO control voltage input
43	AVDD	–	Analog power supply (+5V)
44	RF	I	EFM signal input
45	BIAS	I	Constant current input of the asymmetry circuit
46	ASYI	I	Asymmetry comparator voltage input
47	ASYO	O	EFM full-swing output (low=VSS, high=VDD)
48	ASYE	I	Low:asymmetry circuit off;high:asymmetry circuit on
49	WDCK	O	D/A interface Word clock f=2fs
50	LRCK	O	D/A interface LR clock output f=fs
51	LRCKI	I	LR clock input
52	PCMD	O	D/A interface Serial data output (two's complement, MSB first)
53	PCMDI	I	D/A interface Serial data input (two's complement, MSB first)

No.	Pin Name	I/O	Function
54	BCK	O	D/A interface Bit clock output
55	BCKI	I	D/A interface Bit clock input
56	VSS	–	GND
57	VDD	–	Power supply (+5V)
58	GTOP	O	GTOP output
59	XUGF	O	XUGF output
60	XPCK	O	XPLCK output
61	GFS	O	GFS output
62	RFCK	O	RFCK output
63	C2PO	O	C2PO output
64	XROF	O	XRAOF output
65	MINT3	O	MNT3 output
66	MINT1	O	MNT1 output
67	MINT0	O	MNT0 output
68	XTSL	I	Crystal selector input Low:16.9344MHz;high:33.8688MHz
69	FSTT	O	2/3 frequency-divider output for pins 89 and 90
70	C4M	O	4.2336MHz output 1/4 frequency-divided VCKI output in CAV-W mode
71	DOUT	O	Digital out output
72	EMPH	O	Outputs a high signal when the playback disc has emphasis, and a low signal when there is no emphasis
73	EMPHI	I	Inputs a high signal when de-emphasis is on, and a low signal when de-emphasis is off
74	WFCK	O	WFCK output
75	SCOR	O	Outputs a high signal when either subcode sync S0 or S1 is detected
76	SBSO	O	Sub P to W serial output
77	EXCK	I	SBSO readout clock input
78	VSS	–	GND
79	VDD	–	Power supply (+5V)
80	SYSM	I	Mute input Active when high
81	NC	–	Not used
82	AVSS	–	Analog GND
83	AVDD	–	Analog power supply (+5V)
84	AOUT1	O	Left-channel analog output
85	AIN1	I	Left-channel operational amplifier input
86	LOUT1	O	Left-channel LINE output
87	AVSS	–	Analog GND
88	XVDD	–	Power supply for master clock
89	XTAI	I	Crystal oscillation circuit input Input the external master clock via this pin
90	XTAO	O	Crystal oscillation circuit output
91	XVSS	–	GND for master clock
92	AVSS	–	Analog GND
93	LOUT2	O	Right-channel LINE output
94	AIN2	I	Right-channel operational amplifier input
95	AOUT2	O	Right-channel analog output
96	AVDD	–	Analog power supply (+5V)
97	AVSS	–	Analog GND
98	NC	–	Not used
99	NC	–	Not used
100	XRST	I	System reset Reset when low

Notes)

- PCMD is an MSB first, two's complement output.
- GTOP is used to monitor the frame sync protection status. (High:sync protection window released)
- XUGF is the negative pulse for the frame sync derived from the EFM signal. It is the signal before sync protection.
- XPLCK is the inverse of the EFM PLL clock. The PLL is designed so that the falling edge of XPLCK and the EFM signal transition point coincide.
- GFS goes high when the frame sync and the insertion protection timing match.
- RFCK is derived with the crystal accuracy. This signal has a cycle of 136μs (during normal-speed).
- C2PO represents the data error status.
- XRAOF is generated when the 16K RAM exceeds the ±4F jitter margin.

■ PD4843A (CD MAIN UNIT : IC6101)

• SYSTEM CONTROL UCOM

● Pin Function

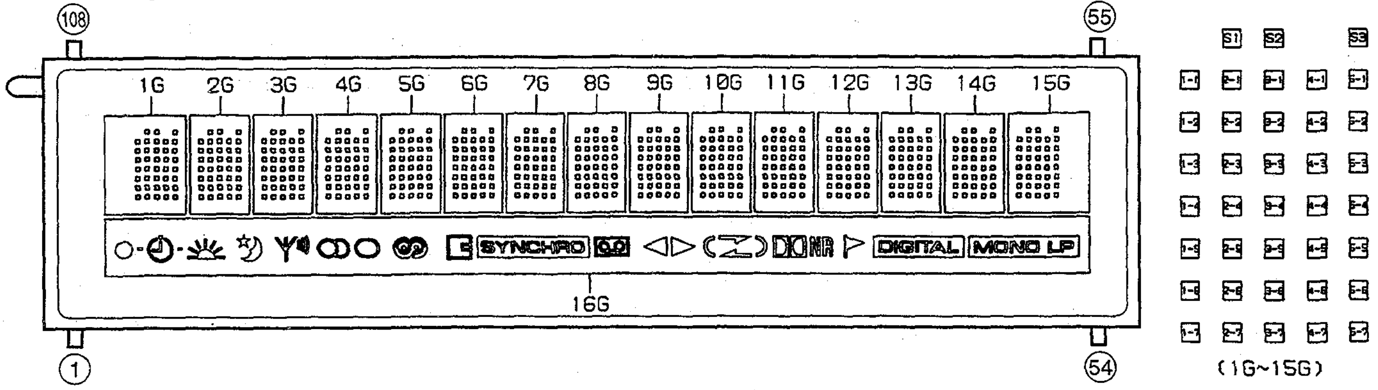
No.	Mark	Pin Name	I/O	Function	No.	Mark	Pin Name	I/O	Function
1	P15/ANI5	S.THERMO	I	A/D input for Sub-thermistor	41	P65/WR	ROMUTE	I	MUTE request of CD R ch O
2	P16/ANI6	J/EX	I	Destination switch input H:J, L:EX	42	P66/WAIT	LOMUTE	I	MUTE request of CD L ch O
3	P17/ANI7	S.CLK	I	System bus CLOCK	43	P67/ASTB	XCLMP	I	CD clamp switch input
4	AVss	———	–	Ground of A/D converter	44	P30/TO0	XOPEN	I	CD open switch input
5	P130	S.DAT1	I	System bus DATA IN	45	P31/TO1	XINSD	I	CD slider inside switch
6	P131	S.DAT0	O	System bus DATA OUT	46	P32/TO2	LOIN	O	CD tray IN
7	AVREF1	———	–	Reference voltage input of D/A	47	P33/TI1	LOOUT	O	CD tray OUT
8	P70/SI2	FLCE	O	FL driver CE	48	P34/TI2	XCDPOW	O	Not used
9	P71/SO2	FLDATA	O	FL driver DATA	49	P35/PCL	SPCONT	O	Speaker relay control
10	P72/SCK2	FLCLK	O	FL driver CLOCK	50	P36/BUZ	XPOWON	O	POWER ON/OFF
11	P20/SI1	SQSO	I	CD SQSO (CXD2529Q)	51	P37	FLPOW	O	FL POWER ON/OFF
12	P21/SO1	CDDAT	O	CD DATA (CXD2529Q)	52	P120/RTP0	FANDRV	O	Fan control HI/LOW
13	P22/SCK1	CDCLK	O	CD CLOCK (CXD2529Q)	53	P121/RTP1	———	O	Not used
14	P23/STB	H.P.SW	I	Headphone switch	54	P122/RTP2	TESTU	I	Unit checker TEST MODE
15	P24/BUSY	D.REQ	O	Display data CS	55	P123/RTP3	TXMUTE	O	TUNER MUTE / IF COUNT
16	P25/SI0	D.DAT	I	Display data DATA	56	P124/RTP4	TXD.O.	I	TUNER DATA OUT (LC72131MD) (PLL frequency synthesizer for elect - ronic tuning)
17	P26/SO0	———	O	Not used	57	P125/RTP5	PLLCLK	O	TUNER CLOCK (LC72131MD) (PLL frequency synthesizer for elect - ronic tuning)
18	P27/SCK0	D.CLK	I	Display data CLOCK	58	P126/RTP6	TXDI	O	TUNER DATA IN (LC72131MD) (PLL frequency synthesizer for elect - ronic tuning)
19	P40/AD0	———	O	Not used	59	P127/RTP7	PLLCE	O	TUNER CE
20	P41/AD1	———	O	Not used	60	RESET	XRESET	I	RESET input of microprocessor
21	P42/AD2	———	O	Not used	61	P00/INTP0	REM	I	Remote control input
22	P43/AD3	———	O	Not used	62	P01/INTP1	ACPULSE	I	AC pulse input
23	P44/AD4	———	O	Not used	63	P02/INTP2	SCOR	I	CD SCOR
24	P45/AD5	HPPOW	O	Power supply for headphone H:ON, L:OFF	64	P03/INTP3	RDSCLK	I	RDS IC CLOCK
25	P46/AD6	VRDATA	O	Volume IC (M62419FP) DATA	65	P04/INTP4	RDSDATA	I	RDS IC DATA
26	P47/AD7	VRCLK	O	Volume IC (M62419FP) CLOCK	66	P05/INTP5	RDSQA	I	RDS DATA QUALITY
27	P50/A8	XLEDTX	O	TUNER LED control H:lights-out, L:light	67	P06/INTP6	S.REQ	I/O	System bus REQ
28	P51/A9	XLEDCD	O	CD LED control H:lights-out, L:light	68	VDD	VDD	–	Positive power supply
29	P52/A10	CDMUTEL	O	Mute control of CD analog output (Lch)	69	X2	X2	–	Crystal connection for main-system clock oscillation
30	P53/A11	CDMUTER	O	Mute control of CD analog output (Rch)	70	X1	X1	I	
31	P54/A12	XCDLA	O	CD LATCH (CXD2529Q)	71	IC	IC	–	
32	P55/A13	GFS	I	CD GFS input (CXD2529Q)	72	XT2	XT2	–	
33	VSS	———	–	Ground	73	XT1/P07	XTESTMODE	I	Test mode
34	P56/A14	CDSEN	I	CD SENSE input (CXD2529Q)	74	AVDD	AVDD	–	Power supply
35	P57/A15	CDSHUT	O	CD XTAL ON/OFF H:XTAL OFF, L:XTAL ON	75	AVREFO	AVREFO	I	Reference voltage input of D/A
36	P60	XMUTE	O	System MUTE H:MUTE OFF, L:MUTE ON	76	P10/ANI0	KEY1	I	KEY input (main unit)
37	P61	XLDON	O	CD laser diode ON/OFF H:OFF, L:ON	77	P11/ANI1	———	O	Not used
38	P62	XTCPOW	O	TAPE power supply ON/OFF H:OFF, L:ON	78	P12/ANI2	KEY3	I	KEY input (display)
39	P63	XRDSFM	O	RDS IC power supply ON/OFF	79	P13/ANI3	ST/TUNE	I	STEREO/TUNED
40	P64/RD	CDRES	O	CD RESET (CXD2529Q)	80	P14/ANI4	MTHERMO	I	Thermistor input (M)

7.1.2 DISPLAY

■ AAV7051 (V5701 : CD FLDP UNIT)

• FL DISPLAY

• Grid Assignment and Pin Assignment



• Pin Connection

PIN NO.	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82
CONNECTION	F1	F1	NP	NP	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	NP	NP	NP	NP

PIN NO.	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55
CONNECTION	NP	NP	NP	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30	P31	P32	P33	P34	P35	P36	P37	P38	IC	NP	NP	F2	F2

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
CONNECTION	F1	F1	NP	NP	1G	2G	3G	4G	5G	6G	7G	8G	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP

PIN NO.	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
CONNECTION	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	9G	10G	11G	12G	13G	14G	15G	16G	IC	NP	NP	F2	F2

NOTE
1) F1,F2 --- Filament
2) NP ------ No pin
3) DL ------ Datum Line
4) 1G~16G --- Grid
5) IC ------ Internal connection

• Anode Connection

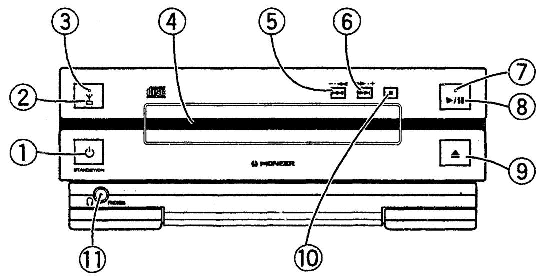
	16G	15G~1G
P1	-	1-1
P2	-	2-1
P3	-	3-1
P4	-	4-1
P5	-	5-1
P6	-	1-2
P7	-	2-2
P8	-	3-2
P9	-	4-2
P10	-	5-2
P11	-	1-3
P12	-	2-3
P13	-	3-3
P14	-	4-3
P15	-	5-3
P16	MONO LP	1-4
P17	DIGITAL	2-4
P18	⚐	3-4
P19	DD NR	4-4

	16G	15G~1G
P20	☽	5-4
P21	Z	1-5
P22	☾	2-5
P23	▷	3-5
P24	◁	4-5
P25	▣	5-5
P26	SYNCHRO	1-6
P27	◧	2-6
P28	⊛	3-6
P29	O	4-6
P30	⚭	5-6
P31	Y	1-7
P32	☽	2-7
P33	☀	3-7
P34	·⏲·	4-7
P35	○	5-7
P36	-	S1
P37	-	S2
P38	-	S3

8. PANEL FACILITIES AND SPECIFICATIONS

• PANEL FACILITIES

STEREO CD RECEIVER XC-L7



STEREO CD RECEIVER XC-L7

① **POWER, STANDBY/ON switch**

② **FM/AM/station button**

③ **Tuner indicator**

④ **CD tray**

⑤ −·◀◀ ⏮ **button**

⑥ ▶▶·+ ⏭ **button**

- Roles of common operation buttons vary depending on the input function currently selected, as follows:

During Tuner Operation

−·◀◀ ⏮ : Frequency and station – (down) button.

▶▶·+ ⏭ : Frequency and station + (up) button.

During CD Operation

−·◀◀ ⏮ : Fast reverse/track search button.

▶▶·+ ⏭ : Fast forward/track search button.

⑦ **Playback indicator**

⑧ **CD Play/Pause button**

⑨ **CD tray Open/Close button (⏏)**

⑩ **CD stop button (■).**

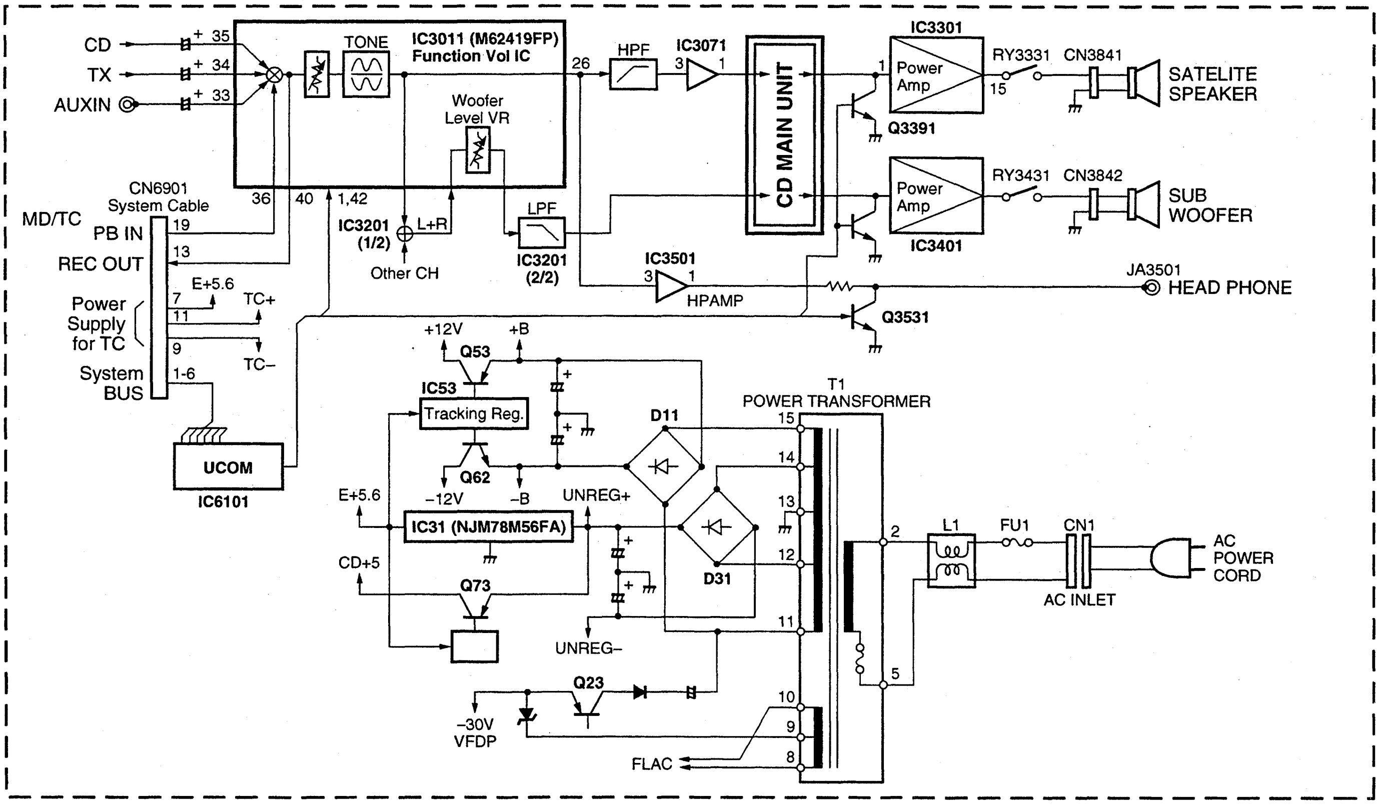
⑪ **PHONES jack**
For use with headphones equipped with a stereo miniplug. When headphones are connected, sound to the speakers is disabled.

*

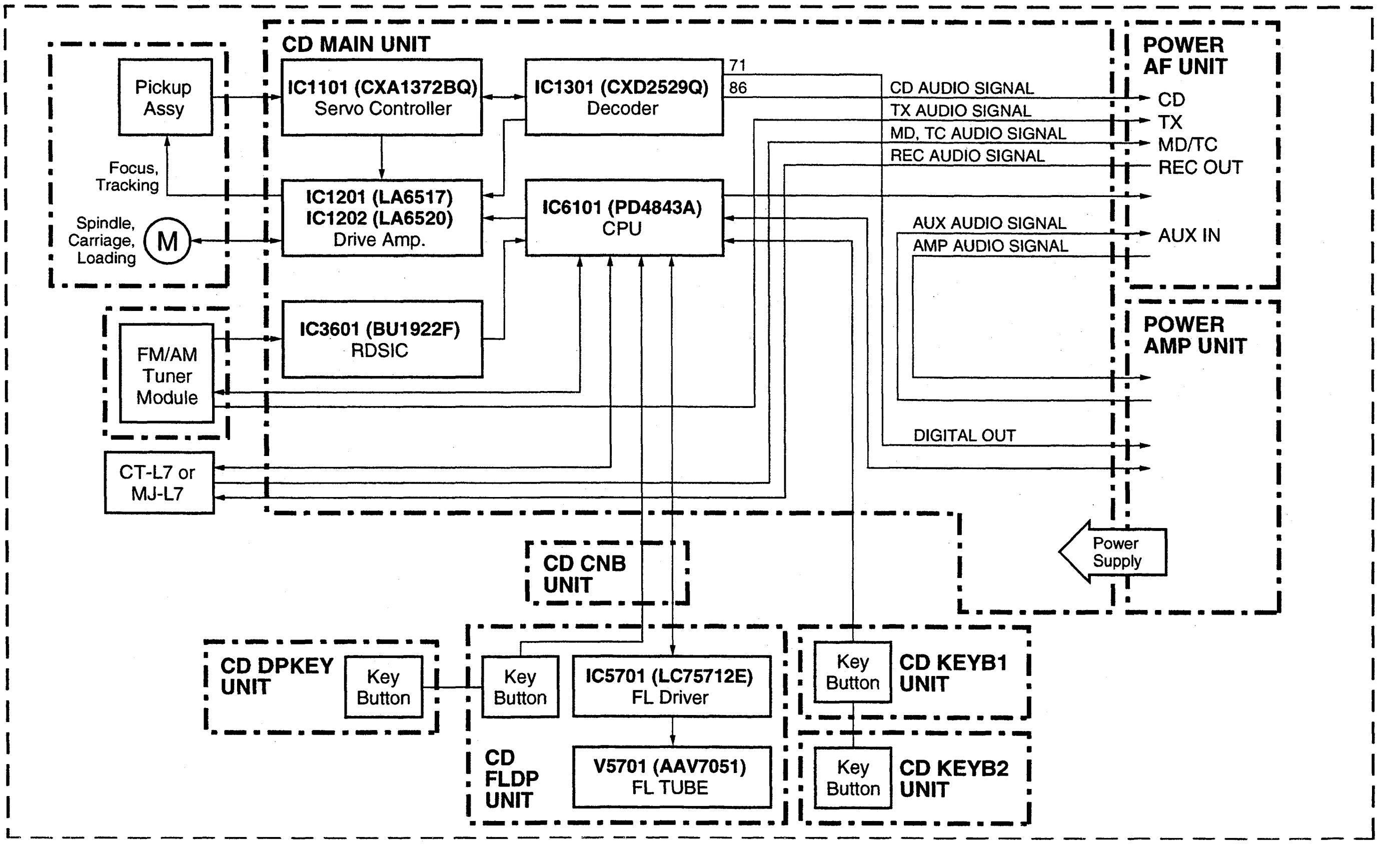
- *Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.*
- *"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.*

7.3 BLOCK DIAGRAM

• POWER SUPPLY BLOCK

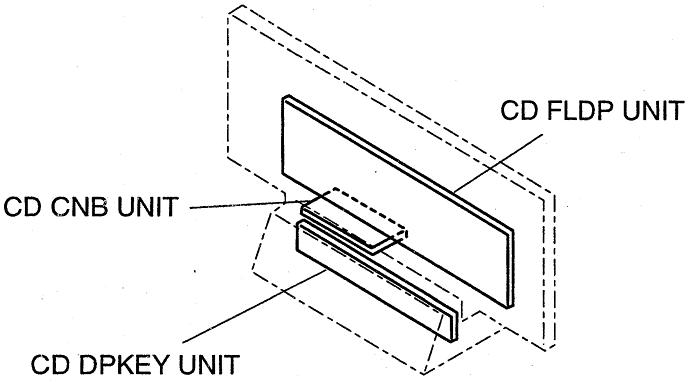

CD
TX
AUXIN
35
34
33
TONE
IC3011 (M62419FP)
Function Vol IC
Woofer
Level VR
26
HPF
IC3071
3
1
CD MAIN UNIT
IC3301
Power
Amp
Q3391
RY3331
CN3841
15
SATELITE
SPEAKER
Power
Amp
IC3401
RY3431
CN3842
SUB
WOOFER
CN6901
System Cable
MD/TC
PB IN
19
REC OUT
13
36
40
1,42
IC3201
(1/2)
L+R
Other CH
LPF
IC3201
(2/2)
IC3501
HPAMP
JA3501
HEAD PHONE
Q3531
E+5.6
TC+
Power
Supply
for TC
7
11
9
TC–
System
BUS
1-6
UCOM
IC6101
+12V
+B
Q53
IC53
Tracking Reg.
Q62
–12V
–B
UNREG+
D11
T1
POWER TRANSFORMER
15
14
13
12
11
10
9
8
E+5.6
IC31 (NJM78M56FA)
CD+5
Q73
D31
UNREG–
2
5
L1
FU1
CN1
AC INLET
AC
POWER
CORD
Q23
–30V
VFDP
FLAC

• MAIN BLOCK

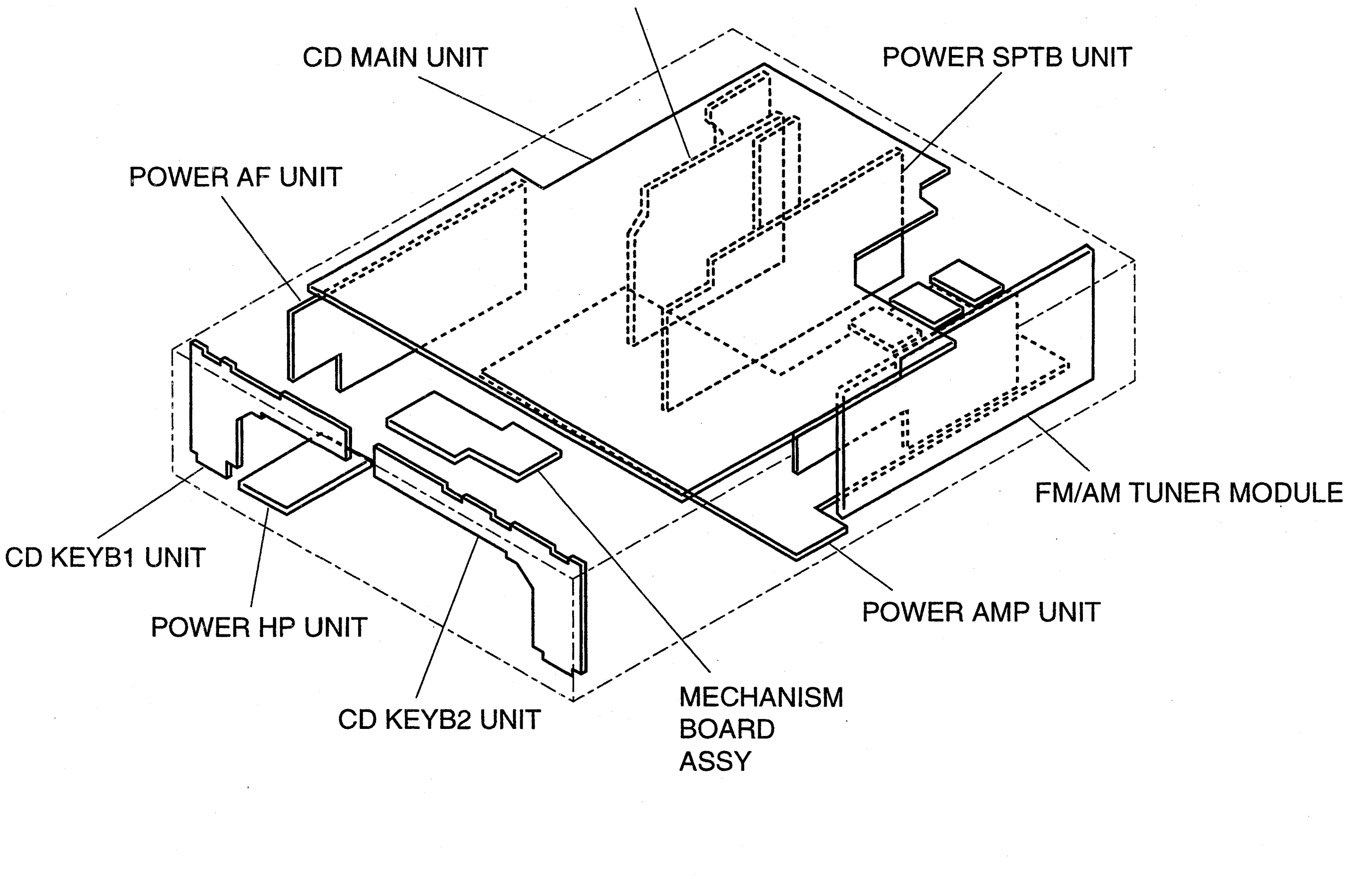

Pickup
Assy
Focus,
Tracking
Spindle,
Carriage,
Loading
M
CD MAIN UNIT
IC1101 (CXA1372BQ)
Servo Controller
IC1301 (CXD2529Q)
Decoder
71
86
IC1201 (LA6517)
IC1202 (LA6520)
Drive Amp.
IC6101 (PD4843A)
CPU
IC3601 (BU1922F)
RDSIC
FM/AM
Tuner
Module
CT-L7 or
MJ-L7
CD AUDIO SIGNAL
TX AUDIO SIGNAL
MD, TC AUDIO SIGNAL
REC AUDIO SIGNAL
AUX AUDIO SIGNAL
AMP AUDIO SIGNAL
DIGITAL OUT
POWER
AF UNIT
CD
TX
MD/TC
REC OUT
AUX IN
POWER
AMP UNIT
Power
Supply
CD CNB
UNIT
CD DPKEY
UNIT
Key
Button
Key
Button
IC5701 (LC75712E)
FL Driver
V5701 (AAV7051)
FL TUBE
CD
FLDP
UNIT
Key
Button
CD KEYB1
UNIT
Key
Button
CD KEYB2
UNIT

7.2.2 PCB LOCATIONS

• DU-L7

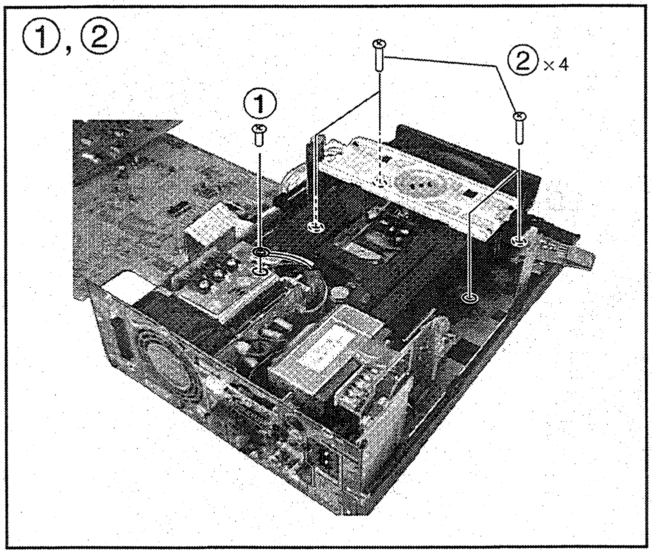

CD FLDP UNIT
CD CNB UNIT
CD DPKEY UNIT

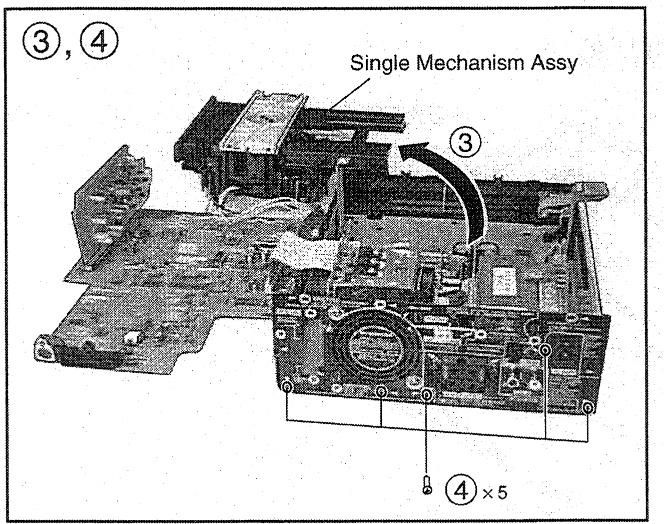
• XC-L7

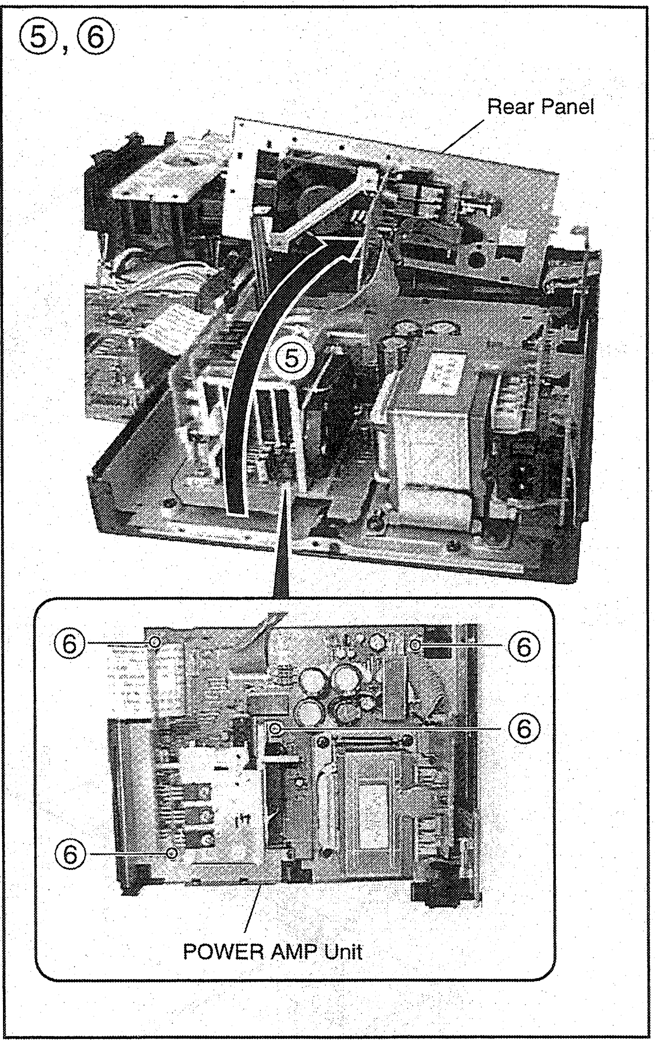

POWER TRANS UNIT
CD MAIN UNIT
POWER SPTB UNIT
POWER AF UNIT
FM/AM TUNER MODULE
CD KEYB1 UNIT
POWER AMP UNIT
POWER HP UNIT
CD KEYB2 UNIT
MECHANISM BOARD ASSY

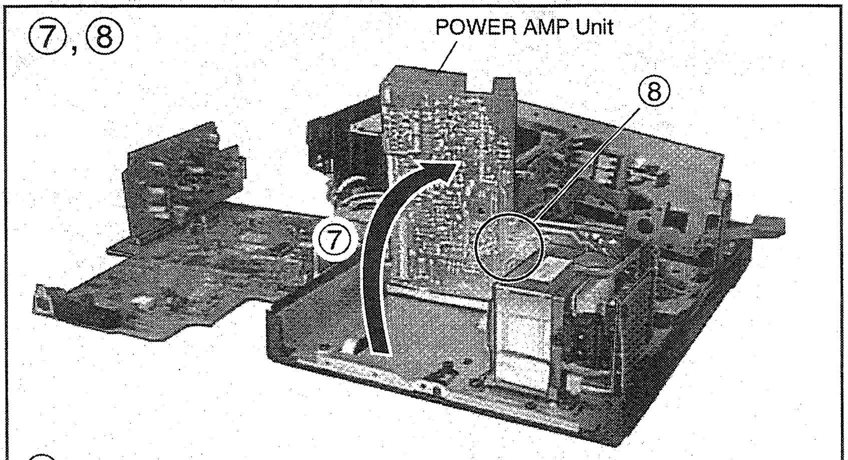
(3) SINGLE MECHANISM ASSY AND POWER AMP UNIT

Disassembly : ①→②→③→④→⑤→⑥→⑦→⑧
Assembly : ⑧→⑦→⑥→⑤→④→③→②→①




③, ④
Single Mechanism Assy
③
④ × 5


⑤, ⑥
Rear Panel
⑤
⑥
⑥
⑥
⑥
POWER AMP Unit

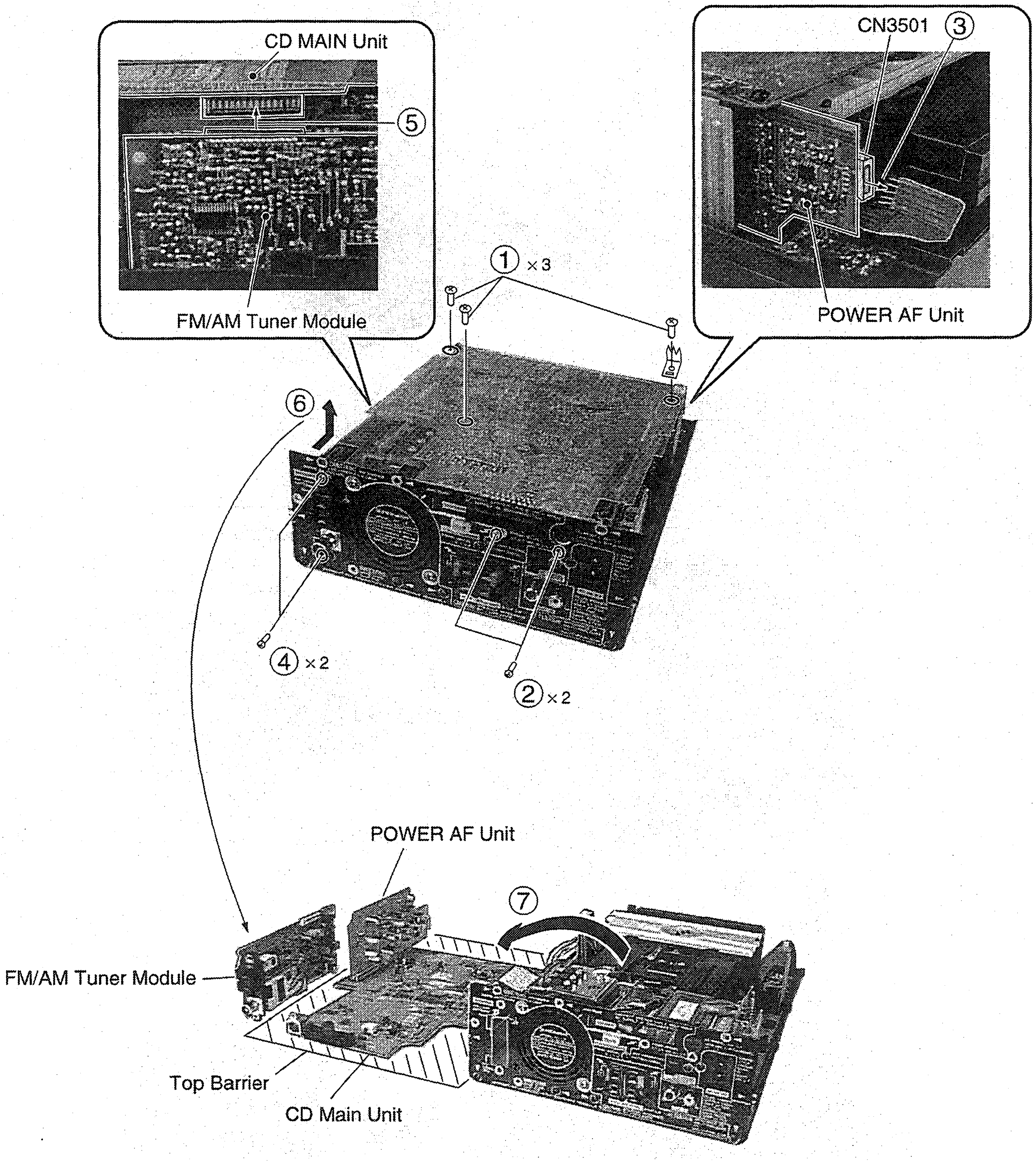

⑦, ⑧
POWER AMP Unit
⑧
⑦

⑧ Discharge C13, C14, C31 and C32 with several ohms.
(Microfuse and so on will be damaged when short-circuit the circuit before discharge.)

* It is possible to diagnose each PCB Unit in this state.

(2) CD MAIN UNIT, POWER AF UNIT AND FM/AM TUNER MODULE

Disassembly : ①→②→③→④→⑤→⑥→⑦
Assembly : ⑦→⑥→⑤→④→③→②→①

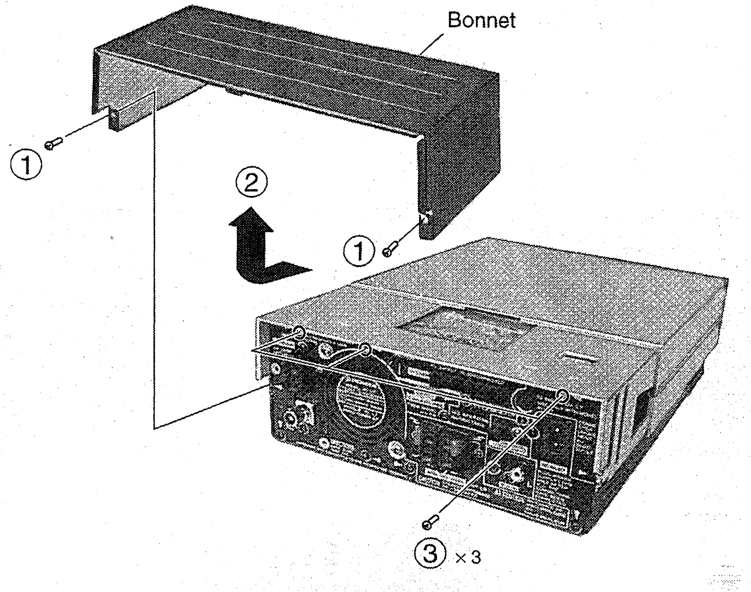

CD MAIN Unit
⑤
FM/AM Tuner Module
CN3501 ③
POWER AF Unit
① ×3
⑥
④ ×2
② ×2
POWER AF Unit
⑦
FM/AM Tuner Module
Top Barrier
CD Main Unit

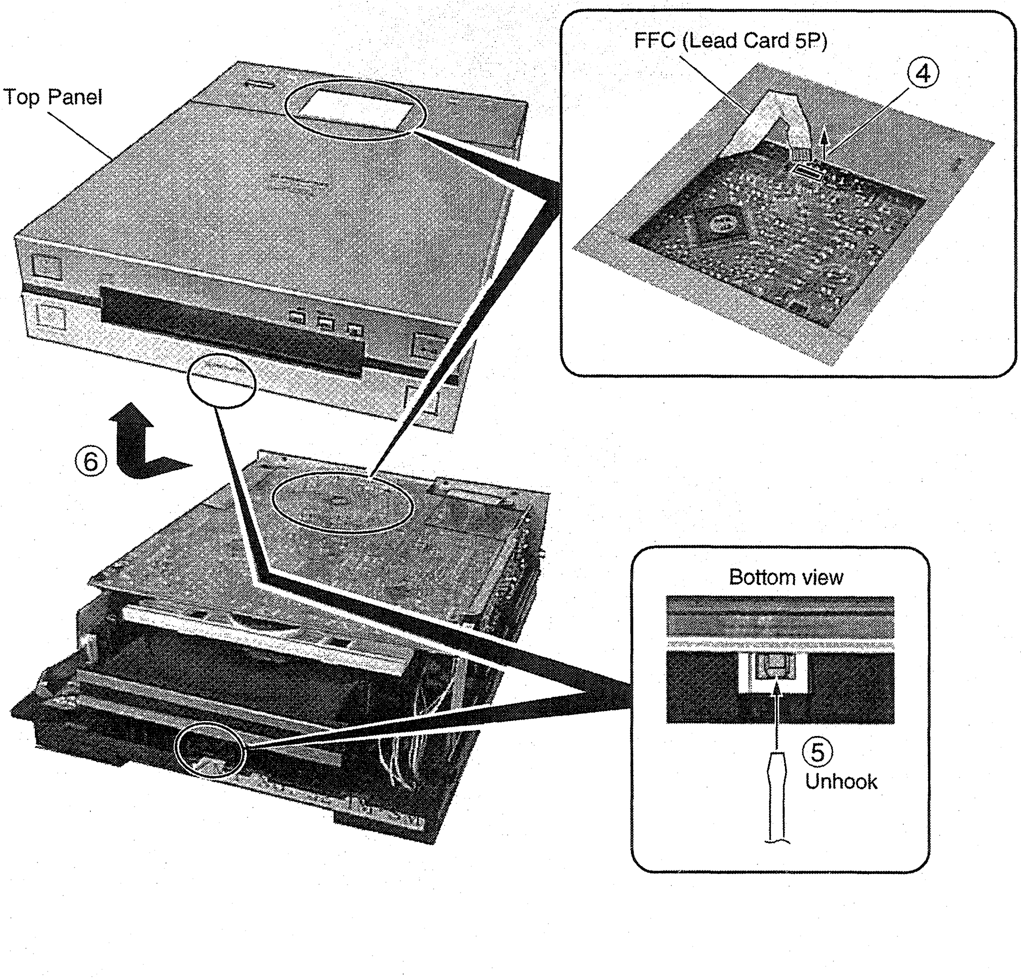
7.2 DIAGNOSIS

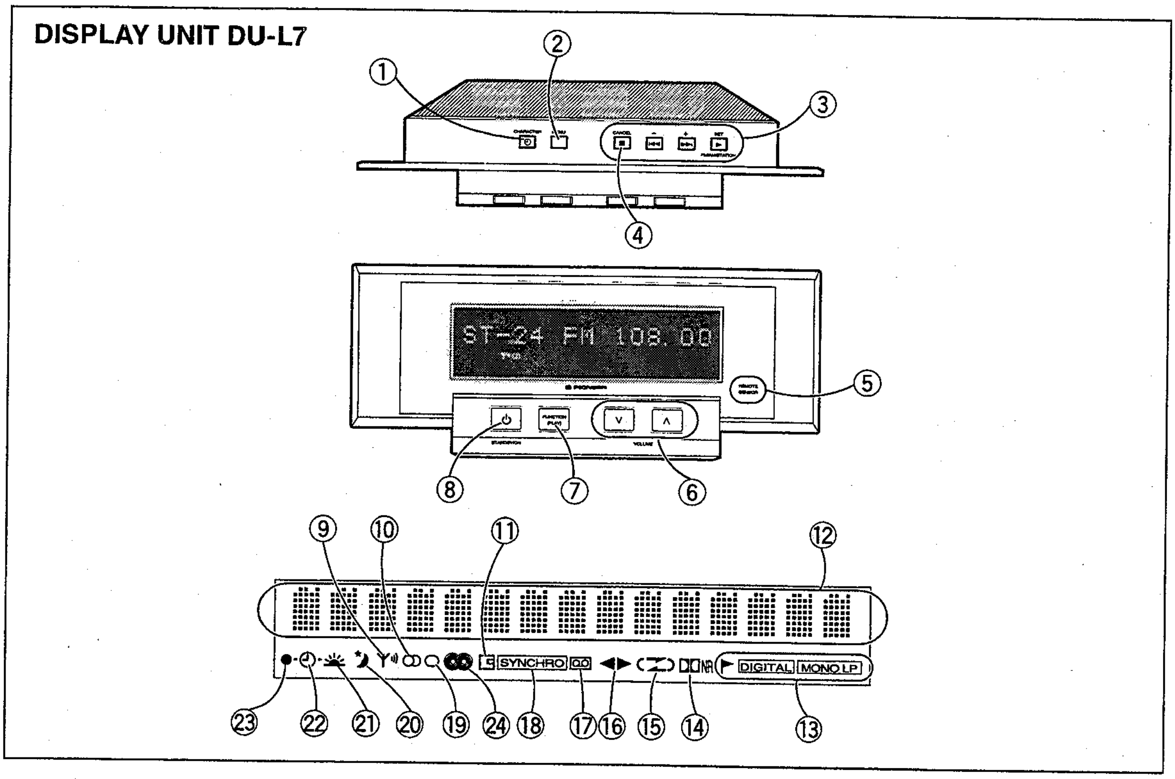
7.2.1 DISASSEMBLY

(1) BONNET AND TOP PANEL

Disassembly : ①→②→③→④→⑤→⑥
Assembly : ⑥→⑤→④→③→②→①


Bonnet
①
②
①
③ ×3


Top Panel
FFC (Lead Card 5P)
④
⑥
Bottom view
⑤
Unhook



DISPLAY UNIT DU-L7

① **CHARACTER/Timer button**

② **MENU button**

③ − ⏮ + ⏭ SET ▶ FM/AM/STATION **buttons**

- Roles of common operation buttons vary depending on the input function currently selected.

④ **CANCEL/Stop button**

⑤ **REMOTE SENSOR**

⑥ **VOLUME ∧ (UP), ∨ (DOWN) buttons**

⑦ **FUNCTION button**

⑧ **POWER STANDBY/ON switch**

[DISPLAY SECTION]

⑨ **Lights when station is tuned.**

⑩ **Lights when receiving a stereo broadcast.**

⑪ **Lights during MD recording; flashes during recording pause mode.**

⑫ **Shows station frequencies and main operating conditions.**

⑬ **These indicators are used when the optional MiniDisc Recorder MJ-L7 is added as part of the system. For details, consult the Operating Instructions accompanying the MJ-L7.**

⑭ **Lights when Dolby *NR is ON.**

⑮ **Indicates reverse mode.**

⑯ **Indicates direction of tape travel on cassette deck.**

⑰ **Lights during tape recording (flashes during recording pause mode).**

⑱ **Lights during synchro-recording standby and operation modes.**

⑲ **Lights during monaural mode.**

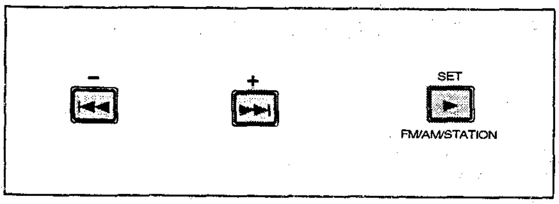
⑳ **Lights during setting and operation of the sleep timer.**

㉑ **Lights during wake-up timer setting mode; flashes during operation.**

㉒ **Lights during setting and operation of the recording timer and wake-up timer.**

㉓ **Lights during recording timer setting mode; flashes during operation.**

㉔ **The RDS indicator will light in the RDS mode.**


−
+
SET
FM/AM/STATION

DISPLAY UNIT DU-L7: Roles of common operation buttons vary depending on the input function currently selected, as follows:

During Tuner Operation

− ⏮ : Frequency and station – (down) button.

+ ⏭ : Frequency and station + (up) button.

SET ▶ FM/AM/STATION : FM/AM/STATION button.

During CD Operation

− ⏮ : Reverse track search button.

+ ⏭ : Forward track search button.

SET ▶ FM/AM/STATION : Play/Pause button.

During Tape Operation

− ⏮ : Rewind/Reverse music search button.

+ ⏭ : Fast forward/Forward music search button.

SET ▶ FM/AM/STATION : Play/Direction button.

During MD Operation

− ⏮ : Reverse track search button.

+ ⏭ : Forward track search button.

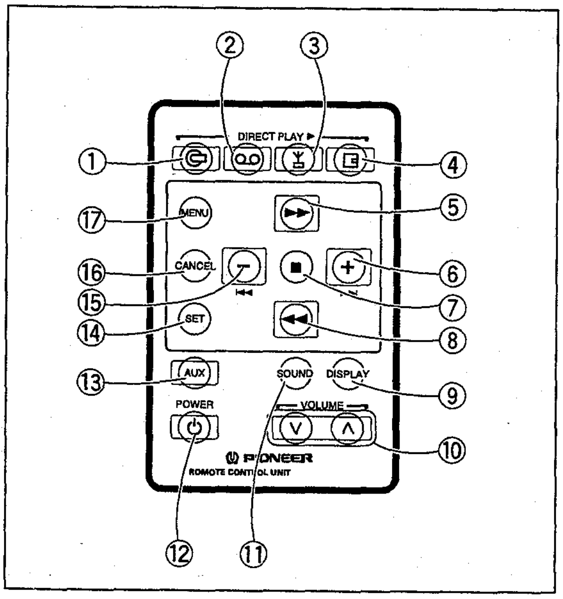
SET ▶ FM/AM/STATION : Play/Pause button.

During MENU/timer operation mode

− ⏮ : Minus button.

+ ⏭ : Plus button.

SET ▶ FM/AM/STATION : SET button.


②
③
DIRECT PLAY ▶
①
④
⑰
MENU
⑤
⑯
CANCEL
⑥
⑮
⑦
⑭
SET
⑧
⑬
AUX
SOUND
DISPLAY
⑨
POWER
VOLUME
⑩
PIONEER
REMOTE CONTROL UNIT
⑫
⑪

REMOTE CONTROL UNIT

① **CD Play/Pause button**

② **Tape Play/Direction button**

③ **FM/AM/Station button**

④ **MD Play/Pause button**

⑤ ⏩ **button**

⑥ + ⏭ **button**

⑦ ■ **button**

⑧ ⏪ **button**

⑨ **DISPLAY button**

⑩ **VOLUME ∧ (UP), ∨ (DOWN) buttons**

⑪ **SOUND button**
Each time this button is pressed, the sound mode changes in the following sequence:

→ BASS → TREBLE → BALANCE → WOOFER LEVEL ←

⑫ **POWER button (POWER STANDBY/ON)**

⑬ **AUX function button**

⑭ **SET button**

⑮ ⊖ ⏮ button

⑯ CANCEL button

⑰ MENU button

- Roles of buttons ⑤, ⑥, ⑦, ⑧, and ⑮ vary depending on the input function currently selected, as follows:

During Tuner Operation

⊕ ⏭ : Station + (up) button

⊖ ⏮ : Station - (down) button

⏩ : Frequency up button

⏪ : Frequency down button

During CD Operation

⊕ ⏭ : Forward track search button

⊖ ⏮ : Reverse track search button

■ : Stop button

⏩ : Fast forward (manual search) button

⏪ : Fast reverse (manual search) button

During Tape Operation

⏩ : Fast forward button

⏪ : Rewind button

■ : Stop button

⊕ ⏭ : Forward music search button

⊖ ⏮ : Reverse music search button

During MENU mode Operation

⊕ ⏭ : Plus button

⊖ ⏮ : Minus button

⏩ : Cursor movement (during character input)

⏪ : Cursor movement (during character input)

During MD Operation

⊕ ⏭ : Forward track search button

⊖ ⏮ : Reverse track search button

■ : Stop button

⏩ : Fast forward (manual search) button

⏪ : Fast reverse (manual search) button

• SPECIFICATIONS

Stereo CD Receiver: XC-L7

Amplifier Section

Continuous Power Satellite (RMS)	30 W + 30 W (1 kHz, THD 10%, 8 Ω)
Continuous Power Subwoofer (RMS)	50 W (100 Hz, THD 10%, 4 Ω)
Continuous Power Satellite (DIN)	24 W + 24 W (1 kHz, THD 1%, 8 Ω)
Continuous Power Subwoofer (DIN)	41 W (100 Hz, THD 1%, 4 Ω)
Music Power Satellite (DIN)	40 W + 40 W (1 kHz, THD 1%, 8 Ω)
Music Power Subwoofer (DIN)	60 W (100 Hz, THD 1%, 4 Ω)

- Above specifications are for when the power supply is 230 V.

FM Tuner Section

Frequency Range	87.5 - 108MHz
Antenna	75 Ω, unbalanced

AM Tuner Section

Frequency Range	531 kHz - 1,602 kHz (9 kHz step)
Antenna	Loop antenna

Compact Disc Section

Type	Compact disc digital audio system
Usable discs	Compact discs
Channels	2 (stereo)
Frequency Response	4 Hz–20 kHz
Signal-to-Noise Ratio	110 dB (EIAJ)
Wow and Flutter	Limit of measurement (0.001%) or less (EIAJ)

Power Requirements	AC 220-230 V, 50/60 Hz
Power Consumption	95 W
Dimensions	220 (W) x 85 (H) x 310 (D) mm
Weight	4.0 kg

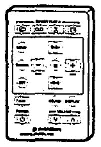
Accessories

Operating Instructions	1
Warranty Card	1
FM antenna	1
AM loop antenna	1
Remote control unit	1
Lithium battery (CR2025)	1
Remote control unit holder	1
Power cord	1
Display unit cord	1

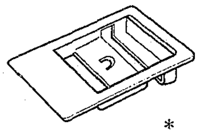
NOTE:
Specifications and design subject to possible modification without notice, due to improvements.

• ACCESSORIES

- Remote control unit × 1
  [AXD7145 (CU-XC004)]



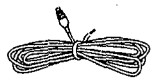
- Remote control unit holder × 1
  (AAH7008)



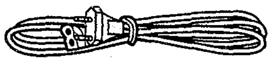
*

- Lithium battery × 1
  [VEM1009 (CR2025)]

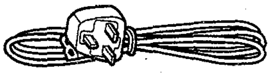
- FM antenna × 1
  (ADH7005)



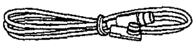
- Power cord × 1
  (ADG7010)
  (For MYXK type)



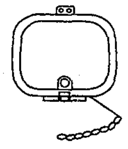
- Power cord × 1
  (ADG7009)
  (For NVXK type)



- Display unit cord × 1
  (10P mini-DIN cable)
  (ADE7014)



- AM loop antenna × 1
  (ATB7007)
  (shown assembled)



- Operating instructions × 1
- Warranty card × 1

* The remote control unit is supplied already mounted inside in its holder.